Grass Roots

Craft and self-sufficiency

For down to earth people

AUST $3.75

Australian and
New Zealand Edition

Registered by
Australia Post
Publication No. VACO 405

ISSN 0310-2890

No. 69
OCTOBER 1988

- Simple Cellar
- Organic Soft Fruit
- Silkworms
- Low Voltage System
- Sheep Care
- Bamboo



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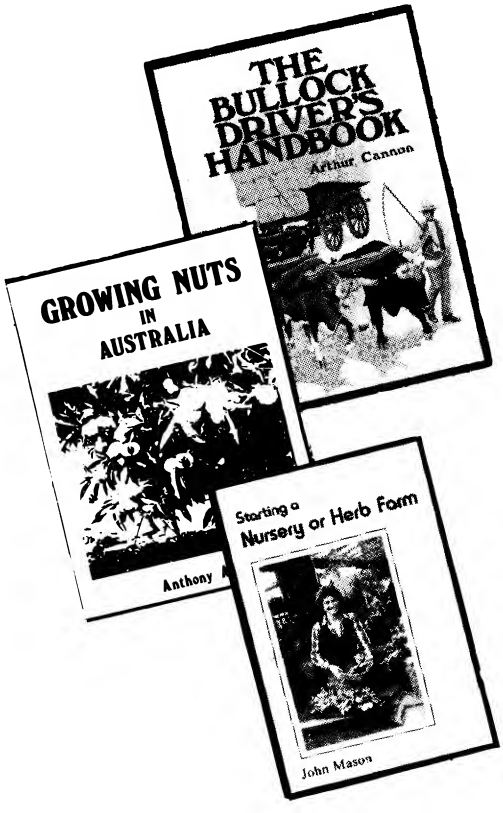
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Grass Roots
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Front Cover: This is a pumpkin to be proud of and we can imagine the quality of the chook manure and compost, the diligent watering and the care offered by its owner to produce such a fine specimen. Whether or not you wish to emulate our cover star, now is the time to start preparing your soil and to establish seedlings if you want to dine like a king this summer.

See page 23 for some new and unusual types of vegetables.

Back Cover: Sheep are the ideal animal for many with small acreages, being easier to contain than goats and less expensive to buy than cattle. But think carefully before rushing in as they are labour intensive and easy prey for predators. Select sheep that will suit your needs — be they meat, fleece, carpet wool or handcrafts. The owners of this coloured flock are spinning enthusiasts and find a ready market amongst friends and locals for the coloured fleece. Read about starting with sheep on page 17.

Distributed to newsagents by Gordon & Gotch.

Feedback Link-Up Feedback

Dear GR Friends,

After about five years of reading this unique and fascinating magazine I feel compelled to write and say 'thanks' to all those contributors to Feedback who have aired their thoughts, feelings and aspirations through this medium. It is nice to know that I am not alone in my desire to escape the escalating rat race of modern society and return to a less materialistic and basic form of existence.

Some 6 months ago, to the amazement of workmates and friends, I gave up a financially secure clerical occupation in Canberra and with wife Caryl and two boys Stephen and Geoffrey (12, 14) bought 10 hectares in the granite belt between Stanthorpe and Warwick, Qld.

The property included a modest but comfortable home, plenty of water from a spring fed dam, house well and rainwater tanks. About 60 assorted fruit trees, grape vines, raspberries, youngberries, gooseberries etc in a neglected state awaited our tender care. With practically no experience and armed with a wad of DPI notes and the kind advice of the previous owner we attempted to control the disease ridden trees and grow vegetables in soil with a pH level of just 4.5!

In 6 months we have learnt a great deal but the most staggering revelation has been the horrific variety of chemical sprays that must be applied regularly to control the pests, fungi and weeds. Commonsense dictates that we must CHANGE TO ORGANIC METHODS and we are fortunate that our small holding and low overheads will allow this transition to take place. My sympathy goes to those commercial chemical growers, with high overheads, who are on the treadmill to disaster and unable to get off.

Whilst we have enjoyed the change of lifestyle we would dearly love to meet other GR organic minded people, particularly those who may be hiding in the QUEENSLAND GRANITE BELT REGION. All letters will be answered promptly. May all your dreams come true.

David and Caryl Parker
New England Highway
COTTONVALE 4375.

Hi,

We are living in NW Qld and have had a recurring problem with NUTGRASS. We've tried almost everything to control its spread but have had no luck so far. If anyone could help us with any information at all we would be so grateful. Thanking you.

P Murphy
C/- GPO
CROYDON 4871.

Grass Roots
Craft and self sufficiency
For down to earth people

Edited by Megg Miller and Kath Harper.
Published by Night Owl Publishers Pty. Ltd, Box 764, SHEPPARTON 3630.

Grass Roots is produced for those who wish to regain control over their lifestyle by exploring the alternatives to modern mass consumption. Whether you've just started out or you're an old hand, why not share your experience and knowledge with other readers of Grass Roots. All contributions of articles and photos are welcome.

Cover design and artwork by Ian Boyd.

Typeset and produced by Layabout Layouts, Box 764, SHEPPARTON, 3630.

Printed by Leader Westernport, 1 University Place, Clayton North 3168. Ph: 03-560-5111.

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G'day All,

Thanks for helpful hints, entertainment and much good reading too. Time to give a helpful hint of my own! For those suffering ECZEMA: the use of BURDOCK is marvellous. It's been nearly 2 years since I used it on my child and it (the eczema) hasn't returned. I used a product called ARKOCAPS by a French company. All it is, is the dried powdered herb (and nothing else) inside a gelatine capsule. I halved the adult dose and saw results in a week. Always remember that eczema is a drying condition so don't aggravate it with too many baths or showers. Keep chemical contact to a minimum, and only use pure soap and soap powder for the body and clothes.

One of my favourite pastimes is writing and this is also an invitation for some mail of my own! I am Michelle (25) and have Vanessa 5 and Rachel 3. At the moment we are on our own but this is soon to change — ain't love grand!! I love music (anyone able to tape some Loggins and Messina albums for me — I'll supply the tapes — please contact me), the outdoors, reading and writing, sewing (when I get the time!) and also my job — nursing.

Let's hope we all obtain the things we are striving for!

Michelle
136 Cumberland Rd
GREYSTANES 2145.

Dear Grass Rooters,

This is my first letter after a couple of years of reading your wonderful magazine. I feel I have newfound friends — your warmth and helpfulness shines through.

We are hoping to lead, in two or three years, a better lifestyle in the country of SA. Our WORRY is WATER. Is it possible in this dry state to live solely off rainwater tanks and how many would we require to have a safe supply for the seasons beyond winter? We are a family of three but would also like to sustain perhaps sheep, goats, chickens and ducks as well as a vegie garden.

We would not be moving to the Adelaide Hills like most alternative lifestyle people here seem to do, but to the Yorke Peninsula where the rainfall appears to be considerably lower.

Chris
32 Kildonan Ave
PARA VISTA 5093.

Dear Grass Roots,

I had a large EARTH DAM built in the keyline system. It filled up very rapidly and I grew fish in it. Then all of a sudden the water just left it and in spite of lots of rain it has not filled again. It was EMPTY over the summer with the lock pipe open — I spent quite a bit on putting a layer of clay — we tried lime but nothing seems to help. Has anyone any suggestions?

Kathleen Moss
RMB 658
ADELONG 2729.

G'day to Everyone,

Hope you're all well and happy. Winter's here again — in fact today's the shortest day. Starting out and finishing each day in the dark sure makes the hours longer than you really think. As the days got shorter here in the valley, it may have been light for the past 2-2½ hours, but the sun still hadn't risen over our hill and lit up our little abode. I'm sure the fowls and goats look forward to it more than us — it's near enough to 0° out there on a clear moony night.

Thanks to everyone for the articles and handy hints and for linking-up and making everyone part of a big family. Here's a FEW HINTS for you. Use a baby-bottle sized bottlebrush for scrubbing out the insides of your children's boots. Bend the handle to the required shape and scrub away where your hands can't reach. A bottlebrush is also good for cleaning colanders, meat defrosters, graters, those sharp blender-blades or anything with awkward corners and angles.

Could someone do an article on how to treat a BESSER-BLOCK WALL before painting it, please? What's a besser-block? A 300 x 150 x 150 mm brick; made in a mould, of cement and gravel or whatever is at hand. Is there a suitable whitewash for these walls? Most recipes I've read deal with mudbrick/pise/rammed earth wall surfaces.

In an old issue of *Grass Roots* there was a handy hint on how best to germinate carob seeds into seedlings. My luck's not so good. Can anyone help?

Lorraine Guagnin
'Da Farm'
Chittering Valley Rd
LOWER CHITTERING VALLEY 6084.

Feedback Link-Up Feedback

Dear David, Megg, Staff and Readers,

My God, this magazine. For the past 3 hours I have sat oblivious to all around me and devoured every word. Sadly, by the time I've read even the classifieds, I am wishing I had saved some for tomorrow. I will, I know, re-read every word again in the weeks to come till my next copy.

My reason for writing is the strange analysis of my reaction to GR: almost convinced at 45 that I'll always have dreams and no realisation of them, always using the excuse that I can't uproot my children when at last they have some direction and stability in their lives. Yet boiling inside is another me. I'm the one in the GR stories, the feedback. I live off those articles, lacking the courage to take the first steps. I often tell myself, one day I'll do it, yet what is 'it'? Standing at the bottom of a mountain with tears on my cheeks because of its majesty, touching a dolphin and wishing I was one too, trying to convince myself it's OK to photograph the most beautiful lake I've ever seen. Am I unusual, can any reader identify with what I'm feeling? How do I BREAK THIS HABIT of 'just dreaming'? Please someone give me a push. Peace to you all.

Bronwyn Humphreys
9 Gundulu Pl
GIRALANG 2617.

Dear Grass Roots,

Does anyone have information on making sugar from SUGAR BEET? I have been given about thirty seeds and would be interested to know how it's done.

Can someone give me advice on growing buckwheat and removing the seed from the hull? My first crop didn't set seed despite an abundance of bees nearby. Can anyone suggest a tree that will grow in the same environment as willows to produce an edible crop or food for ducks or chooks?

Also I am collecting out of the ordinary fruit tree varieties, particularly any with a low sugar content and any that bear during the period from May to December. It's my belief that some people can't handle our selectively bred, modern high sugar content fruit varieties. I would be interested in corresponding with anyone growing any unusual edible fruited plants in a similar climate. Can CRAB APPLES be eaten with their seeds? Are the berries on fuchsias OK to eat? Finally, can anyone tell me where I can obtain liquorice *(Glycyrriza glabra)* seeds? Any advice would be greatly appreciated.

Neil Barraclough
Landy St
BRIAGOLONG 3860.

Dear Readers,

On a recent holiday we stumbled upon the lovely town of MALLACOOTA Vic. We are considering one day living our GR lifestyle there. However, we'd like some information such as schools in the area, price of land, rainfall and building requirements. If there is anyone from the area with some spare time, we'd appreciate hearing from you. We have a four year plan to make the big move. Many thanks to *Grass Roots* for keeping a dream alive.

John & Sharon Champagne
26 Latrobe St
OAKLEIGH 3611.

Dear Megg and GR Readers,

Thank you Megg for a wonderful magazine. I have been a reader since GR 12 and have sent ideas to many Feedback letters, now it's my turn for help.

Unfortunately my sons Kurt 4 and Dale 2 and I (Sue 30) had to return to suburbia since obtaining a new Housing Commission home at a very reasonable rental. I much prefer the country so I shall return there again. Fortunately Caboolture is still close to friends.

Can anyone recommend some FAST GROWING SHRUBS AND TREES I can plant here for privacy? Also does anyone know a recipe for a repellant to DETER DOGS from ripping up the garden? My labrador puppy thinks newly planted trees are great targets.

I am going to start a leadlight business here in the future, I have most of the tools now and this will hopefully keep me busy.

Sue Wain
20 Joanne St
CABOOLTURE 4510

Dear Grass Roots,

Kindly could you tell us where we could buy a NON-VIOLENT MOUSE TRAP?

Jay
Lot 1 Crawfords Rd
COOROY 4563

Dear GR Readers,

Just a short note to thank you all for such a great magazine.

Each and every one of your issues hold something of need for someone. My husband and myself have now devised a SYSTEM for REFERENCE which suits us and may be useful to others, as it saves a lot of time flipping through each and every one of our magazines when we want something. We purchased an index book from our paper shop and now have page numbers, book numbers and titles of interest to us under alphabetical order. It really works.

Also would any craft readers have or know of any AUSTRALIAN ANIMALS KNITTED PATTERNS? They are very hard to come by, but I would appreciate any available patterns. Thank you once again.

Jennifer Dodd
13 Batlow Ave
BATLOW 2730.

Dear Earth Lovers,

I have recently acquired a small property (with three other like-minded folk), 120 acres with approximately half subject to flooding, 30 km west of Grafton. There is abundant water, a soil which seems a little sandy but holds well; a northeasterly aspect with some wind from the west; river flats and a dry undulating hill area with scrubby forest section.

There doesn't seem to be (or have been) one large tree — I hope we're not on a sandstone shelf! We will of course mulch, green manure and add ground glacial rock dust (200 microns!), as well as provide windbreaks where necessary.

My request is where can we obtain sub-tropical/temperate fruit, nut, berries, vines etc from organic or bio-dynamic stock. Also herbs/vegetables similarly appropriate to the conditions.

I would like to make contact with anyone in or near the area who could help regarding natural pest control; what brand of beastie is common? What has proved effective in control of same etc? (Forewarned is forearmed!) Eventually we hope to have little trouble, but at the moment the property has been abused with stock — however, fortunately it has not had superphosphate for several years. The vendor was most apologetic!

Any advice as to what NOT to grow in the area would be greatly appreciated as I am a long time organic enthusiast from a cold European-type climate and this is to be a new learning experience. We would value the opportunity to support other GR growers in the area, as part of a shared ethic. One of our priorities is adding trees to the remaining sclerophyll forest area and appropriate fencing to safely contain some native fauna (area about 25 acres with large dam/lake, waterfowl, and abutting neighbouring forest), for their protection and our enrichment!

If anyone has a PATTERN for FIBRE SHOES/SANDALS that also would be appreciated. Love, light, sunshine and rain to all who 'care' for the earth and that which dwells thereon.

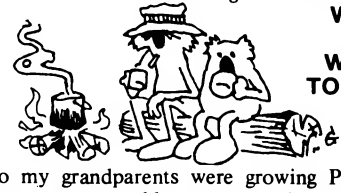
GAIA
'Aberfoyle'
VIA ARMIDALE 2350.

Dear Pise (Rammed Earth) Readers,

We are a couple who are endeavouring to build a PISE home. We are after any information on this style of building that we can find. If you have knowledge or books that may be of help to us we would greatly appreciate any indepth technical information regarding this technique.

Books we have read — *Earth Garden Building Book, Build Your House of Earth, Mudbrick and Earth Building the Chinese Way.*

W & J Wells
RMB 3162
Whitfield Rd
TOLMIE 3723



Dear Readers,

Fifty years ago my grandparents were growing PEANUTS in Toowoomba. These peanuts would creep around covering about ½ metre, and would put down roots which grew into peanuts over the whole of this area under the spreading bush. The nuts were very large and white skinned, with two nuts to each shell/pod. I am hoping someone may have or know someone who grows this variety. Also I am having trouble picking up some ROCKMELON seeds. The variety I am looking out for are long and oval and you could smell the ripe melons. I would be delighted to hear from people who can help me with seeds or information on either of these plants. Good gardening to you all.

Bill McCreath
35 Gladstone St
TOOWOOMBA 4350.

Feedback Link-Up Feedback

Dear Megg and David and Kin,

Come Saturday, comes the plane. A float plane that once again will shuttle me back to Mackay. Only this time I won't come back to 'here', this here place where I jiggle these alphabetical curios into this, their array called a letter. This place called Bushy.

It's an island, uninhabited, virginal and located on the Barrier Reef and for 6 years and 3 odd weeks now I've been living on it. I suppose in essence I've violated that virginity — one person is one person in excess as far as the island's non-habitation is concerned.

What have I done for 6 years? Dived for the first two, reef walked for six, line-fished these last eighteen months, bought a hammock three years back — snored three years prior anyway, scratched poetry from day one with long gaps in between, read books from page one by the glow of driftwood fires (glasses came a month ago), sulked, pondered loneliness, never experienced it but spent six years answering the day tripper's perpetual question 'Don't you get lonely?' or 'What do you do here?' but I've never been able to say what I'll do next should I be told to leave.

I was told to leave a few weeks back. Not a sad story. These days are made of wonder and I find wonder a most exhilarating presence, especially in this context of what to do next. For these last six years that same wonder has been spent on the nature of birds, the hues of the two lagoons, the deep blues of the chasms and holes of the Pacific's deeper reef edge, closer to black than blue; wonder at those:

Sinister grey shadows, a million years bold
But tangible as teeth, five rows cut and cold.
Wonder abounded by a school surrounded
Of a thousand yellow fish.
Scuba coral black, coral blue
Snorkel red coral green, name a colour, I'll show you the hue.

Stings to the left, don't touch to the right
The phosphorous glows of reef flat cities of night.
Turtle seasons — hatchlings — eagles on the wing
Ospreys, terns and gulls, some soar, others sing.
Six years of heaven, heaven came down
Settled on me Bushy, I wore a six year crown.

The Marine Parks have re-zoned the island, it'll carry a 'Park B' status — meaning no to many things including me. No regrets at this — it's a small and delicate atoll and warrants such classification, the plane activity may/may not continue. They only stay a few hours each time and visits are pretty rare. So it's time for a permanent dose of those infested acres of the mainland. I very much look forward to it, as much as what this part of planet earth offered initially and gave thoroughly. Maybe I can still wear that crown. No intent to brag. Just thought I'd relate a dream that did break out of its egg-shell. It's Monday — the plane comes Saturday.

Thomas Thwackery
PO Box 5494
MACKAY 4741.

Dear Grass Roots,

I read the letter (GR 67) from Barbie and Kevin of Toodyay. I'm very glad to see kindred spirits link up that way. It has given me impetus to write on my own behalf.

Nine months ago my best mate Beth died after a car smash, alone and instantly unconscious (I believe). She had just reached a goal we set, as we had moved our home to our block of land (40 ha of forest) just two days before the smash. The memory of her happy face farewelling me as I left for work that morning is the most vivid consolation I have in my grieving.

Three months ago when I first decided to write to *Grass Roots* I was deeply in the pits, and only wanted friendship or help in my pain. Now I feel I am releasing some of the pain, climbing slowly back to health and joy, and I'd love to write to people to share the excitement of getting my shed together and a garden, followed by a house. I have such a lot to learn, as Beth was the one with most informed dedication to the building project.

So I invite people to SHARE YOUR DELIGHT in your environment with me. I plan to have a koala sanctuary and to plant many Australian natives as well as food plants in my growing plot. For now, I am braving the winter from my 3 tent village, and recuperating from various muscular aches.

George Barnes
C/- PO
LIMEBURNERS CREEK 2324.

Dear Readers,

It is 3 years last month since I discovered this beautiful magazine in a nearby bookshop, and since then I've managed to get most copies here in New Zealand. The pleasure I feel when I get my hands on each new copy is indescribable. When first I discovered *Grass Roots* all those months ago I felt a strong desire to get away from the environment in which I feel so imprisoned, and to escape to a more wholesome and natural kind of lifestyle in the country. Last year in June I came over to Australia for 3 months to try to find that elusive dream. I found a warm, friendly, hospitable people and a delightful warm environment. I was utterly captivated with the birdlife, the gum trees and the wide open spaces. In short, I fell in love with Australia and hunger to get back again. Three months was not long enough to find the dream I'm searching for so I returned to my job here and am saving hard, and planning along working holiday for as long as it takes to find my utopia.

Although I am a little older than most of the readers of this magazine (52 in November this year) I am still fit and healthy and have plenty of stamina and determination. I plan to try all kinds of work, jobs I've often thought I'd like to try, but being tied to home and family and office job commitments, was unable to do. Now that my family are all living their own lives and I am alone, I find myself free to follow my destiny.

If any of you readers can give me some words of ADVICE, some helpful tips, or recommend good places to find work, I would be most grateful to hear from you. I plan to try fruitpicking, nannying, housekeeping, station cook's assistant, cottage craft work, even office work (if there's any in the country), whatever comes along that I feel I could do.

I plan to buy a good campervan rather than a car, as this will give me accommodation as well as take me where I want to go. If anyone who has done a similar undertaking would care to write to me, I would be delighted to hear from you. At this stage, I envisage embarking on my trip at the end of summer in early '89. Meanwhile I look forward eagerly to hearing from you all. Your letters will help get me through the long months ahead.

Shirley McDermid
PO Box 48:016
SILVERSTREAM
NZ.

Dear Readers,

I'm a volunteer worker in VANUATU, working as a maintenance officer with the Health Department. It involves a lot of inter-island travel and getting into the bush which I enjoy. It's also very demanding and frustrating but mostly it's challenging.

I would love to hear from anyone who is planning a visit to this beautiful place and would like somewhere to stay, or from anyone who is interested in Vanuatu.



Sam Pearse
PO Box 207
VILA
VANUATU.

Dear Readers,

This is the first time I've written to Feedback. I enjoy reading *Grass Roots*, which is bought by our herb group.

Margaret (GR 67): you may not have meant the human animal, but here's a couple of remedies I've tried, handed down to me 30 odd years ago by F I Law. Juice from bruised bracken fern root takes pain out of ANT BITES and some stings. For BEE STINGS, it's rather sticky but after scraping off sting, apply some honey, it reduces pain and helps prevent swelling if applied quickly enough. Don't go near bee hives with honey on you, as they will attack. They will also attack if you've just washed your own or your animal's hair. My husband seemed to choose to rob the hives just as I was pegging washing out, washing the dog, or washing my hair. He rarely got stung, it was usually me, the innocent one and I swell — luckily most stings were on hands.

Eileen (GR 65): I use the ashes from my wood stove on the garden. SNAILS AND SLUGS won't crawl over the charcoal, which is good for the soil. I have lovely big sweet strawberries. As the soil here is acid, the wood ash is very beneficial to the herbs too, especially lavender. I use crushed egg shells and dolomite for sweetening my soil. Banana skins are beneficial to roses, stag-horns, compost heap. Encourage lady birds, they eat the aphids. Orange nasturtiums under fruit trees help deter pests.

I have used NEWSPAPERS for years and years and the ink doesn't appear to have done my plants harm. They reduce weeding, keep moisture in ground and make good compost.

Ruth English
Bartholomew Rd
ELIMBAH 4516.

Feedback Link-Up Feedback

Dear Grass Roots,

The winds of change have finally brought us here to our homeland where we are settling well and adapting to a new way of life. It was our choice, for personal reasons, not to join the kibbutz or moshav movements, and so find ourselves in an apartment in a pleasant neighbourhood overlooking the vast timeless Judean wilderness.

My past interest and experience in organic gardening has been all outdoors and elbow deep in soil with large vegie plots in Australia and New Zealand. Here I'm faced with the prospect of WINDOW BOX GARDENING. I have many questions. Can I compost, mulch, what about earthworms? What's a good recipe for potting mix? Plant food? I'd deeply appreciate letters — especially from anyone who may be able to offer ideas and experiences with this style of farming. I have large window ledges and deep boxes.

Chana Vallen
108/5 Neve Yaakov
JERUSALEM 97350
ISRAEL.

Dear Fellow GR's,

Could someone please help with the problem of UNDERSLAB SPRAYING. The local health inspector insists that we must spray poison before pouring onground slabs. If you have successfully defended your right not to spray would you please send details of place, date and council concerned (even the inspector's name). There is strength in numbers, so if we can present as many factual cases as possible, we feel we have a chance. There must be some sane inspectors around, so please let's hear about them.

Clem Collier
Little Run Rd
WHERROL FLAT 2429.

Dear GR Readers,

We are interested in ALTERNATIVE or HOME SCHOOLING for our 7 year old child. We hope some reader can help us. Also we need help to get rid of WHITE ANTS on our block of ground. They are killing all our fruit trees. All the best to fellow readers.

Bill and Betty
20 Marion St
CHARTERS TOWERS 4820.

Dear Grass Roots,

Greetings from suburbia. It's where I'll be for some time yet. There are positive attributes in abundance for those urbane among us. But if one tries to adapt a GR lifestyle to grow in suburbia the limitations soon present themselves. I count myself among the very fortunate. I'm a house husband with two marvellous children and one third of an acre to do what I can. When I think about inner-suburbia my quandary pales.

It is here that the main drawback of suburban life should be mentioned. Fences! Fences cast shadows. My northern fence runs east-west and the shadow (in Melb) on the ground is 3-4 metres wide. When the height of the fence is then added, giving a surface about 5 m wide, it's easy to see the winter wasteland. Can someone please tell me of a plant — shrub, small tree, vine or something to grow in this land? The most I can do at the moment is to select a plant tolerant of shade and dry which has flowers and attracts insects. Can I go one better and also have a CROPPING, SHADE TOLERANT PLANT? Of course inside the fence I want to plant vegetables so the height of the plants can't be higher than the fence.

The restrictions in suburbia! The local council allows BANTAMS. I'd like to run just a handful. Can a reader perhaps tell me how, especially in regard to compatibility with fences and cats?

URBAN WATER BORES — I intend to go through official channels and sink an irrigation bore. The water table is about 4 m down and I have about a 95 percent chance of striking good quality water. The quantity will be limited but so are most things here. Has someone struck a similar bore in fine sand? Can any problems be related? I expect most problems to come from the induction of water into the pump. The pump will either be run by solar cells to a holding tank or similarly by a windmill.

I can see that soon I will try to find or found a SELF-SUFFICIENCY GROUP in my area. Are there any groups on the Mornington Peninsula area or, would anyone like there to be such a group? Time and again I break out my *Grass Roots* index file and find solutions — and problems I'd not expected. Thanks for many years of your magazine. Of course *Grass Roots* would be less without its readers; thanks also to you all.

Richard Kandel
74 Kirkwood Ave
SEAFORD 3198.

Dear GR Folk,

Contrary to Disappointed's experience (GR 67), most people who request help through GR Feedback do respond. However I have on many occasions written to people within a week or so of getting my copy of GR only to have my letter returned 'left address'. If you are waiting for answers, please use an address where mail will reach you or at least have it redirected. Also remember that post offices will only hold mail for one month.

Secondly my request. What to do with LEMONS. I've a tree in my yard producing dozens of lemons per week. I've made lemon butter, marmalade and pickled lemons. Today I even made some lemon muffins and another 5 litres of lemon juice. Most recipes I've used only require one or two lemons. Are lemons suitable for freezing? Does anyone have any more suggestions for using lemons? Can I make a chutney with lemons?

K Tighe
PO Box 869
DANDENONG 3175.

Dear Grass Roots Readers,

Recently I have been developing my skill at making leaven risen bread. I would like to investigate milling flour at home and wonder about the range of FLOUR MILLS available and their pros and cons. The idea is to grind flour fresh to make better bread. I have no idea as to how much choice is available in mills of this type. Thanks *Grass Roots* for having a column like this, it makes good reading and is a great forum for sharing.

Susan Moss
6 Brimar Crt
MOUNT WAVERLEY 3149.

Dear Grass Roots,

I didn't see the original suggestion about a LISTING OF COMMUNITIES and I am definitely not 'Anonymous'. However, I disagree with H Paglino (GR 67). A listing is needed to help people who are searching for unusual features. For instance, where would you find a community which is into Christian spirituality and where nudity is OK? You could no more ask a stranger about this in a 'community centre' than you would in Martin Place. Anyway, where are these community centres? As far as privacy is concerned, the information would have to come from the communities themselves and they could supply as much or as little as they wished. All letters answered. Peace to all.

Peter O'Brien
PO Box 110
BROOKLYN 2253.

Hi, Grass Roots Readers,

As a reader who bought his first *Grass Roots* (No 26) back in 1981, I would like to say thank you for the many hours of good reading. To Wendy Black who would like to know what to FEED her CHOOKS besides pellets: I feed mine wheat which has been soaked in water for up to 3 or 4 days and nearly sprouted (change the water daily). Mix with seaweed (which has been cut and rotted for 1 year) and meat and bone meal (for protein). If they are free ranging they should get as much greenery and grit as they need. For chickens crush the wheat before you soak it.

I have lived on the land in NZ for many years and have grown organic vegies, raised cattle/calves, built windmills, my own house, made beehives, keep chooks, ducks, turkeys, have a large orchard, and make 2-3 tons of fish fertiliser per year. Should any readers require information on NZ CONDITIONS please write.

Keith Fisher
C/-PO NGUNGURO
WHANGAREI NZ.

Dear Grass Roots People,

I need your help. After having two children, both born at home, and raising/nurturing them in a rather isolated spot — 50 km to the nearest doctor, a vast distance and a great shock to a city bred New Zealander — I have been persuaded to write and present a paper on MOTHERING IN ISOLATION for the 1989 Home Birth Conference. As a reader of *Grass Roots* I know there are many other isolated mothers and I would love it if you could find some time amongst your hectic life/lives to write and share your thoughts, feelings, ideas and needs with me. I will try and reply to all letters I receive and will definitely write to *Grass Roots* and let you all know how the conference goes.

Thanks for listening and I'm looking forward to hearing from you.

Sue Edwards
C/- PO
MANGROVE MTN 2250.

Feedback Link-Up Feedback

Dear Grass Roots,

I really enjoy reading *Grass Roots* and have learnt a lot of very interesting things. I love reading, especially when I can learn something useful.

For years now we have lived with nature, a little too closely I feel as my family has been on this farm for 10 years, but if we leave for even a weekend everything goes back to the way it was when it was uninhabited. The two main problems are snakes and spiders. The spiders build huge webs across all the walkways and doors, but they do learn quickly and move their webs to accommodate us until they get their next chance to take over. The snakes take a lot more convincing. We have black, brown, swamp tigers and the occasional taipan (very nasty) plus the usual (grass, tree, carpet and pythons). Now having all these unwanted visitors does cause a problem with our household pets. We found a SNAKE BITE RECIPE many years ago which has been invaluable to us on many occasions not only for snake bites but also for SCRUB TICKS which would normally kill a dog or cat. Simply drop a few crystals of potash (potassium permanganate) into a small bowl of milk, just enough to turn the milk a tan colour as potash is a poison. Most animals will drink this themselves if capable. If not, carefully spoon the milk into their mouths. This has never failed us and on many occasions has saved our neighbours' pets when the vets have given up. We have never used this on people, only pets.

Brenda
C/- PO Box 764
SHEPPARTON 3630.

Dear GR Readers,

Just to let you know how I became a *Grass Roots* reader. This magazine was brought to me by a friend when I was in Germany. I found it so interesting and very helpful. Now that I've been 5 months in this lovely country, it is good to know that those people who choose the alternative way are increasing.

I would like very much to get to know such people and be able to visit them to gain more awareness as to how they make use of the natural resources, gardening, crafts etc. Although I have travelled 12,000 km in the south and in the east it was hard for me to MEET with GR READERS, because most live and hide in the countryside. Sometimes I'd wanted to stop someone who shares the same spirit and say hello to those people who care about the earth and don't abuse it. I would like to have contact with people who find harmony with the divine nature and prefer nature to materialism.

It would make me happy to get answers from people who feel touched by my letter. Many thanks.

Martha Bakhtiari
C/- Chery Ayoub
71 Bass Drive
BAULKHAM HILLS 2153.

Dear Readers,

Now seems to be the time for people who live in Sydney and have thought of moving out to do so. High prices in Sydney will allow people to sell out and improve their lifestyle in country towns.

May I be allowed to say that anyone wishing to improve their lifestyle should consider SCONE NSW very carefully. Scone, a town of 4800 people, has a good shopping centre, good schools, and provision for most sports. Churches of all denominations, adult education, TAFE, CYSS, Senior Citizens Club are available and horse and cattle studs, piggery, poultry farms and a timber mill all providing employment. Land and houses are at giveaway prices compared with Sydney e.g. land on council developed subdivisions with up to 28 m frontages with all amenities sells from $14,500-$20,000.

Scone has cool mornings in the winter. We had our first frost in June but the frost is followed by a very nice day. It gets hot in the summer but on the average has a fairly moderate climate. Good soil in most areas with underground or creek water, historical and rural museums, arts and crafts centre and a very talented amateur theatre group, all this adds up to a good place to live and work. There's a fully acredited hospital, nursing home, self-contained units for senior citizens spread throughout the town, Meals-on-Wheels, a Ratepayers Association, plane, bus and trains run daily to Sydney. Soil Conservation, Dept of Agriculture and Forestry Commission are all available locally. Come and see for yourself: hotel, motel, caravan parks and holiday farms are all available.

Harry Willey
Lot 32
Tullong Rd
Middlebrook
VIA SCONE 2337.

Dear Grass Roots Friends,

I am making bread again using the sourdough method which is similar to yeast we made years ago on the stations except Mum added a pinch of hops to the potato water, flour and sugar. However, I have been unable to buy hops here. Mum used to make beautiful bread, never used gluten and the flour was often 3 months old.

As we read *Grass Roots* over the years we gather more recipes together — Anna Rando's spaghetti and spaghetti sauce, Renate's cleaning liquids recipes etc. We have watched Suni grow up, seen Megg and David progress, followed Maureen and Barry Wright through their travels, felt for Iriss Quigley in her illness and in general feel part of an extended family. I have written to many, some don't reply even a couple to America, which is disappointing but win some lose some. There are some still penfriends and some are firm friends who stay a while in their journeys and I know should I journey their way I will find a cup of tea, a meal and a bed.

I wish I could remember more Aboriginal remedies to share with you. In my childhood in Quincan country there were still nomad tribes camped here and there and my brother and I heard many of their cures, but as I was the baby I have forgotten a lot. Their green ant cures I remember most and am a protector of GREEN ANTS (I think, pure vitamin C). I am always asking people not to spray them; some day surely the medical profession will use them maybe even to cure something like AIDS. Over the years I have told doctors, nurses, university lecturers and lots of folk about the things I remembered the Aborigines used green ants for but they smile nicely and think I am nuts. I put bits of food under the mango tree for the local green ants and shortly after up the tree 'walk' prawnheads and odd bits and pieces.

Poor Mum who was London born and came here when she was 16 years old coped admirably I must admit, when she soon found herself rearing a family on an isolated cattle property on Cape York Peninsula, but she never got the feel for the bush and its inhabitants that we did, born to the bush.

Now a couple of beauty recipes to keep the lines at bay and the complexion soft. Natural yoghurt and honey with a couple of drops of oil (almond or apricot are light) makes a good face pack. Yoghurt and rolled oats or crushed almonds, or honey and either of the latter is also good and can also be used as a scrub. In summer I keep a couple of slices of cucumber in a saucer of sour milk in the refrigerator and at odd times rub a slice over my face. Perhaps I am no oil painting though. About 5 years ago my oldest brother arrived unexpectedly. As we kissed in greeting I said 'Oh, I just remembered — sour milk on my face.' Poor guy gave a weak 'Oh', and asked several times over the next few hours 'Are you sure you are all right?' Maybe he was thinking 'And she's the youngest of us!'

I am learning to cope without my mate of 35 years but it has not been an easy year. All around me I see the work he put in with this house in the two years we lived here before we went bush again. He was a very versatile man as was his father before him.

In October I go via Alice Springs to Adelaide to visit my son and two little grand-daughters. It is 3 years since I saw them so am looking forward to this immensely. Maureen and Barry Wright, if you are near Adelaide, could you give me a phone number via *Grass Roots* so I can say 'hello' please?

What a long letter. Peace and good health.

Lorn Seaman
Townsville
C/- Box 764
SHEPPARTON 3630.



Dear Grass Roots Fans,

It has been a long time coming but my TRAVELS around as much of AUSTRALIA as possible will hopefully begin with spring or summer of 1988 and continue on into 1989. I would like to meet as many GR people as possible especially people in Christian communities or individuals who are somewhat unconventional or unique in some way, perhaps eccentrics or even a recluse or two if they feel they could cope with the company of a lady in her mid-forties for a few hours. I have a pleasant easy-going personality and I do not smoke or take drugs. I can enjoy the occasional social drink, but even that is rare. Any reader who feels they would like to add another friend to their list then please write. I shall answer all letters.

M R M
PO Box 667
LILYDALE 3140.

Feedback Link-Up Feedback

Dear Friends,

A few months ago I discovered the joys of growing things from SEED: trees, shrubs, vines, herbs, anything, preferably perennials. In a few years time our block here in WA will probably look like a botanical garden. When I run out of space I'll start planting roadsides and asking neighbours if I can plant their unused odd paddock for them with all kinds of things. I find this simple and most satisfying.

I am looking for SEEDS, and I wonder if any of you could help me with seeds of the following: soursop or guanabana (*Annona muricata*), taro (*Colocasia esculenta*) and cassava (*Manihot esculenta*). I am aware that the two latter are usually not grown from seed and in the tropics only, but suckers or cuttings are not readily available in this area, and I like growing things from seed. According to the very useful and recommendable publication *Economic Plants and Their Ecological Distribution* from Duke, Hurst and Terrel all of the above should do fine here in the SW. I want to give it a go.

Also I seek any seeds in general and those of natives in particular, either as kind donations or I am also perfectly willing to pay for what I get, or trade. So I invite you to let me know what you have to offer (wherever known with botanical names, thanks), also any questions or advice welcome. Happy growing and peace to all!

G Parlow
PO Box 105
PEMBERTON 6260.

Apart from the informal contact provided by Feedback, a good place to start when looking for seeds of rare and unusual plants or old-fashioned varieties is the Seed Savers' Network run by Jude and Michel Fanton, PO Box 24, Nimbin 2480. Page 23 of this issue also features sources of seeds and plants by mail order.

Dear Folks,

A couple of months ago here in the Bega Valley Shire we had a great seminar on marketing organic produce. We were all agreeably surprised by the large attendance and enthusiasm, and the result was the formation of OPEC (Organic Producers East Coast).

The aims of OPEC are primarily to function as a support group for organic growers in the south-eastern region of NSW and north-eastern Victoria (both experienced growers and those who are still only in various stages of development and planning), to work towards setting up an organic produce marketing co-operative and to be a body which will look after the interests of its members and approach government departments and similar official organisations on their behalf. We feel that the larger the number of growers in this region working together in this way, the sooner it will be that we shall develop a solid national reputation as reliable suppliers of quality organic vegetables, berries and nuts. We are already producing the *OPEC Newsletter*, and any *Grass Roots* reader who would like a free sample copy of it should send a 37 cent stamp to cover postage. Also, any reader who wants to know about our region should feel free to write to us with their queries.

This is one of the most beautiful parts of Australia, and with a very agreeable climate it is already quite well populated with good neighbours (i.e. GR types of course). There are OPEC members (and probably many other folk hereabouts) who would enjoy hearing from readers with ideas, offers or queries about land-sharing, work exchanges, crop sharing etc. By national standards, land prices are still quite reasonable here thus it is easier than in other areas to set up an acreage for organic production. We look forward to hearing from you, and naturally, all letters will be replied to — not only from folks interested in organics, but from any readers who would like to drop us a line.

Bill Lewis
PO Box 150
COBARGO 2550.

Dear Megg, Kath and All GR Folk,

I think I may have an answer to LS of Ashbourne GR 67 who feels her LIFE is falling apart and wants to REBUILD IT. I found myself in a similar situation and contemplated suicide. A friend gave me a book I had never heard of before. It was called *Pax Magna* (Great Peace) and it changed my life without being swamped and destroyed by the materialist society. After a lot of phone calls I finally located the address where it can be obtained. The address is Animo Publishing, PO Box 164, Forest Hill 3131. The price is $10.00 including postage within Australia.

Love and best wishes to all.

Michelle Jones
'Sweet Place'
FLOWERDALE 3717.

Dear People,

In October we will be leaving beautiful Blackheath in the Blue Mts. to live on 50 acres of very fertile land at Maleny in the beautiful Blackall Ranges: giving up the comforts of a house that has served us well for the last ten years, giving up a secure income, water on tap, electricity, walking to the train and shops I sit and ask my self 'why?' I think people reading this will understand our reasons.

If there are any people from the district they might like to write. We are very keen to hear of education for our daughter, if there is a RUDOLF STEINER school available or possibly starting one (someone has to make the first move) or other options.

We are interested to ABSORB KNOWLEDGE about bio-dynamics, farming, organic energy devices and terracotta block building. If anyone has secondhand books on these I would be interested to buy them or read and return. Kind regards to all. Please write if you feel you want to.

Daniel, Janette & Felicity Hawkins
PO Box 45
BLACKHEATH 2785.

Dear Grass Roots,

Are there any ALTERNATIVE LIFESTYLE PEOPLE living around the Cardwell, Kennedy, Murray Upper areas of NTH QLD? I live alone on an acreage in the bush and I am suffering from that growing malaise of modern Western society — alienation — so contact with people I could identify with would be welcome. I prefer people not living in the nuclear family situation as separation from a wider identification with community is one of the causes of alienation. I have been this route myself. Couples living together with children even would be okay as long as they are not thinking insular and competitive.

I'm a 45 y.o. woman and I relate especially well to young people and to fair minded people of all ages. Presently, I'm studying the effects of science technology on cultures and also studying politico-economic systems, off campus. To circumvent this disease of alienation and to make a better material life possible by grouping together suitable people I plan to initiate a fairly large scale commune in NTH QLD within the next two years. If you're living nearby or if any of this strikes a chord in you please write. A SAE would be appreciated.

Sheen
PO Box 151
CARDWELL 4816.

Dear David & Megg,

We would like to thank you for a down to earth, open and very friendly magazine. It is full of experiences and handy hints for those of us who love the simple life. At the moment we are serving as missionaries in PNG and here we are living in the bush where we have our own vegie gardens and it is possible to grow almost anything here in the Highlands. At the end of the year we will visit our families in Australia, and we will be in Melbourne in December in the Dandenong area, and in January in Qld in the Gympie area. We would like to VISIT any people in proximity to these areas who are building or have BUILT their own HOME out of MUD or STONE and also those who are GROWING HERBS as a business.

It will only be a day trip as we will be staying with our relatives but we would like to take the opportunity of learning a bit from others' experiences and perhaps share what we have learnt in PNG about down to earth living. If you want to drop us a line so that we can contact you when we get to Australia it would be appreciated.

Bill Cortizo
PO Box 188
KUNDIAWA PNG.

Dear GR,

In reply to 'Disappointed' SA (GR 67 p. 11): Apparently I had more luck than you with REPLIES TO LETTERS WRITTEN. I answered 6 people and got replies from 3, and nice letters they were too. If you like, I will write to you also, but how do I know who you are when you only sign your name 'Disappointed'? Mind you, this problem of no replies is probably a genuine grievance and the rap over the knuckles for James Thompson of Port Macquarie by the editor (GR 67 p.8) for not personally answering letters is quite justified.

My only grievance is that I wish that people answering questions could also reply to the magazine at the same time. The reason is that a lot of the QUESTIONS asked by people are the same as I want to know, and the same questions keep popping up from time to time, but we don't get any ANSWERS.

Ted Wilson
Bootawah Rd
TINONEE 2430.

Feedback Link-Up Feedback

Dear GR Readers,

Just after I last wrote to *Grass Roots* we had to find another house because our landlord was selling up. After having a couple of overseas hitchhikers stay the night, the following day we drove them to Millicent to drop them off on their way to Melbourne. We had all become good friends overnight so decided to take a picture of us all. I had parked in front of an old stone villa on a small hill surrounded by 100 ft pine trees. Later when checking the real estate board,there it was,and to cut a long story short, months later I bought it. There are 5 dwellings on the 10 acre block: the villa (in need of restoration), a garage, old dilapidated shearing shed, a small wood or tool shed and a one roomed cottage with open fireplace. Everything is built from stone so is quite sturdy.

Obviously after acquiring all this my travel plans have been knocked on the head but eventually I want to settle up north in a warmer climate. I am dismayed to see that very few GR FOLK FROM SA write to *Grass Roots* for I would dearly like to meet some like-minded people. I am on my own now living here with my daughter and our animals and am finding the old saying that it's not what you know but who you know to ring very true around here. This place has so much potential but without the proper tools and machinery I'm not getting anywhere. Any GR folk needing a place to put their van overnight are quite welcome. The one room cottage needs a door to be fitted properly to stop the draughts then that could be used for overnight stays. I would love to hear from any GR folk anywhere but in particular around the SE of SA for friendship and company. I've been here close on 18 months and have only made two real friendships. Hoping to hear from you all soon. Thank you.

Karen Abrahamson
'Redbanks'
251 Mt Gambier Rd
MILLICENT 5280.

Dear Megg & Kath,

Hi there, I am one of your newer readers. I happened to buy a copy of your magazine while in Victoria, and was pleased to find, on my return home, that my newsagent kept *Grass Roots* so I immediately placed my order for future copies, I am now on my third. I find the magazine most informative and good to read, I enjoy it very much. Having lived on the land for 90 percent of my life, both in W QLD and on plantations in Papua New Guinea, it is great to be able to keep in touch with the country lifestyle through a magazine such as yours.

My husband has retired now, and we have lived at Mission Beach for the past three and a half years. It is one of the most beautiful areas of Australia, we virtually live amid the rainforest, it comes down to our beaches and into our back doors. A truly beautiful piece of paradise, but I fear the day of the developer is not too far away, as we have now been discovered by tourist groups, resort contractors and the media. Just when you think you have the perfect paradise, it seems everyone else has found it too! It may be time soon to move on to another undiscovered area. Unfortunately I doubt if one could find another spot as beautiful.

While I am writing to you I would like to know if any of your readers could help me to find out the approximate year a book I have in my possession, on herbs and their values was printed. It is called: *CULPEPER'S BRITISH HERBAL, the British Herbal and Family Physician for the Cure of Diseases Incident to the Human Frame,* by Nicholas Culpeper, Student in Physic and Astrology, printed in London by W Nicholson & Sons Ltd. I think the book is very old and possibly quite rare. Any help I can get will be much appreciated.

Thank you so much, looking forward to many more hours of reading.

Bette Wicks
PO Box 120
MISSION BEACH 4854.

Dear Megg and GR Readers,

The article 'Manure Mania', by Adriana Fraser had me chuckling to myself. It reminded me of when I was still at school and my older brother bought me a cartload of horse manure. At the time I lived in the cold NE of England and it was fairly plentiful. It was the finest present I've ever had. I remember swooping on it with a huge miner's shovel and getting it out of the way as quickly as possible before anyone 'borrowed' a bucket or two of the precious stuff. At present I live in a modern brick unit and plan to move onto my own piece of land (when I buy it). Old venetian blinds make excellent LABELS for the GARDEN. Although my garden consists of pots on the balcony, I made a mini fence along the balcony with my blind end, very effective it looks too.

Love and best wishes to you all.

Gil Davison
PO Box 663
NUNDAH 4012.

Dear Grass Roots,

In GR 68 a letter of mine appeared looking for lost friends, signed Jenny. The address given was 38 Pallas St. However no such address exists, the correct address was 314 Pallas St. Also to complicate things further I have now found out the correct surname of Bill and Maureen: it is McCauley, not McCulloch.

Can you please assist with this at all? Thank you.

Jenny Williams
314 Pallas St
MARYBOROUGH 4650.

Our apologies Jenny for getting your address wrong, and we wish you luck in finding your lost friends.

Dear Megg, David and Grass Roots Readers,

In answer to Debbie Scott's letter (GR 66) for APPLE CIDER VINEGAR: I have used this simple recipe for many years and it has never failed. I am sure some of the other readers would like to have it.

3 kg (7 lb) green apples (sweet apples for a milder vinegar)
13.5 lt (3 gal) of cold boiled water
1.5-1.8 kg (3½-4 lb) sugar

Apples must be sound (also not sprayed). Cut out all the bruised parts. Mince all the apples i.e. skins, pips, cores — the lot. Put into large open-necked container and pour over the cold boiled water. Cover with muslin and stir well every day for 10 days, then add the sugar and stir for about 5-10 minutes. Cover well with muslin and leave undisturbed for 8 months. Just push it under a table in a shed or in a cupboard and forget it. Bottle in glass bottles and use. All good vinegars have a 'mother' in them or a slight cloud. The very cloudy bottom I give to my sheep — about 7 ml (¼ fl oz) each 6 weeks. I also put it into the poultry water and the dogs' water. The apple cider vinegar makes the fleeces and coats beautiful and the poultry keep very free of parasites. We humans also have apple cider vinegar as a drink mixed with a little honey and fill the glass with water. The very thick sediment at the bottom of the vat is wonderful for the compost heap. Best wishes to all and thanks for a wonderful magazine.

Loi Lamberg
Kutarere
OPOTIKI NZ.

Dear Megg and Kath,

Do you or any readers know anything about ELECTRIC FOOD DEHYDRATORS? After writing to a company that advertised in your magazine my letter was returned stamped 'PO BOX CLOSED'. Thanking you.

Tamara McKimmie
'The Willows'
RSD Glengarrie Nth Rd
GLENGARRIE NTH 3854.

Dear David and Megg,

We finally decided to get the back copies of *Grass Roots* that we are missing, become subscribers and write a letter to you. We have just CELEBRATED our first anniversary of living on our ½ acre in Yass. It has been an eventful year. Eventually I hope to breed some Plymouth Rocks (chooks) and our own Indian Runner ducks. We had a loan of 2 goats to eat down the back yard (literally) for 6 months. So far we have established a vegetable garden which will hopefully provide us with all our vegetable needs this year. Last year we underestimated, but we kept records of how much we planted and harvested, so we can adjust our estimates for this year. We have planted fruit trees and others, mostly trees that can supply us with berries/fruit to use in jams as well as be ornamental or provide shade. On arriving here the trees we found were an apple (which we were told never bore fruit), a plum (the plums were supposedly useless) and an oak. We were given a small apple tree and our big tree gave us more than we could eat, and I made plum jam and plum sauce off the plum tree. Our duck hatched 2 ducklings and we have made jams, chutneys, pickles, preserved capsicum, preserved lemon juice and I am making bread at the moment. Next will be soap making and rag rugs, not to mention making Christmas presents. We also hope to grow wheat and peanuts this year. The other thing I would like to ask is if anyone has any information on RESTORING SULKIES. We have one which we have started on, but any information would be greatly appreciated. Lastly a thank you to all at *Grass Roots* for such a good magazine, keep up the good work. No doubt we will manage to write again, vegetables/animals permitting!

Brian and Liliam Coulton
14 Shaw St
YASS 2582.

Feedback Link-Up Feedback

Dear Megg & David,

Just a few hints I thought might help someone.

To take the sting out of BULLANT BITES, crush a bracken frond (preferably a young one) and rub on the bite. I always knew bracken had to be useful for something!

To B & J Thompson & family — DUCKS are hard to pluck because the hot water doesn't penetrate the waterproof coating on the feathers properly. I have found that if the duck is thoroughly saturated with cold water, then dipped in hot water for a short time, the job is much easier. A little soap powder in the hot water helps too.

To Pat Browne — if you have so many PUMPKINS that you cannot use them all, why not offer some to the Salvation Army or other groups who help to feed those who cannot afford to buy food? Such organisations are often grateful for surplus produce.

Dorne Chadderton
C/- PO
LEARMONTH 3352.

Hello Everybody,

A request for your assistance please! Has anyone come across a range of PERFUMES, made in the CHANNEL ISLES UK, going by the name of Fleurs des Isles? There are several fragrances — Alliesse, Corbiere and Soucique. I first purchased one of these perfumes in Alice Springs a number of years ago, a friend bought me another from the same place around 18 months later, and after more time passed, I purchased the third and final bottle from Alice Springs. Following this, I wrote to the manufacturers c/- their Guernsey address, but heard nothing. I wrote again early in 1986 and, would you believe it, had a reply from them dated March 1988! Once in Australia, the letter underwent no less than 4 redirections to actually reach me (well done Oz Post!) last week. You can understand why I am reluctant to commit to an order from Guernsey as suggested in their reply! Does anyone have a reliable contact/relative in these foreign parts that could oblige me with a regular supply (all expenses covered of course!) Look forward to hearing from anyone who can help out. Further to the APPLE CIDER VINEGAR debate, I have been using a capful in a cupful of tepid water as a facial splash each morning with good result — my skin is definitely 'softer', though no less blemished — nothing can repair the ravages of a Cherry Ripe or two. Regards to all, hope winter has brought rain to those who need it and less to those that don't.

Sue Lennard
58 Eileen St
BASSENDEAN 6054.

Dear Megg,

It's been a long time. Do you remember me? I'm the one who wrote an article on sourdough and sprouts; who used to live in PNG. You also called me a gypsy. I have seen many places, learned a lot and shared what I've learned as well as myself.

April 19th I married a man who is also interested in making a go at HOMESTEADING. James and I are buying land in Missouri, I have several other friends settling in that area whom I met in my travels. James has 2 more years left in the navy — so this season of time will be full of planning, studying and gathering necessities for homestead life. We are hoping to build a stone cabin on our 30 acre piece. Except for a couple of months travelling last summer, I have been in Corpus Christi for about 2 years. I have been fortunate to have friends who have allowed me to use their land for gardening. This has been a great joy as well as an excellent food source.

The weather is hot here in the US. We are on the verge of famine. When it rains it drops only a sprinkle — not enough for the thirsty land. Hope you are well in Australia. Peace to you my friends.



Pamela Finney
C/- Jo and Nancy Hagerman
Rt 1 Box 395
Jerico Springs
MONTANA 64756 USA.

Dear Grass Roots Readers,

Is there anybody with first hand experience regarding fruit and VEGIE PATCHES in relation to FROSTS? My husband and I are currently planning our orchard and vegie patch (1-2 acres) and before we clear any land we would appreciate any advice anyone has to offer.

Debrah Fisher
PO Box 101
MACLEAN 2463.

Dear Grass Roots,

I have read with great interest your many articles and letters over the years — so enjoyable. I am actually making the move to Rossarden, Tasmania next year and am very interested in making NATURAL COSMETICS. I would love to hear of anyone who has the same interests and who could assist me with advice for making and bottling of same, or a good book that is perhaps printed. Will answer all letters, love pen-pals — I'm 49 years old, Bachelor of Massage and have many other interests. Keep up the good work.

Naomi Robinson
3/4 Loftus St
ASHFIELD 2131.

Dear David and Megg,

We've finally made it. On July 15th we moved from our suburban house onto our 5 acres of fresh air peace and quiet. What a nice change, room to move and roam freely. We, our family, Robert, myself (Christine) and our 3 children Jennifer 13, Melissa 11 and Mark 7 are living in a garage plus caravan annexe while our house is being built.

Even though we live in sunny Qld the weather has been very cold at night. We are quite comfortable with running hot water and a porta-loo. We won't be all that self-sufficient but in the short time we've been here Rob has already got his vegie garden under way. Says he's going to grow the best crop of tomatoes anyone's ever seen. The children now travel by the school bus, a real treat for Mark who is in grade 2. Many thanks for your wonderful magazine.

Donaldson
Lot 46 Kooringal Rd
PARKRIDGE 4125.

Dear Grass Rooters,

Hi! I was wondering if there is anyone who could help us with a GRUB problem? My friend and I are in the process of buying a ½ acre block of land (completely cleared but covered in seemingly luscious green grass and no weeds) at Bodalla, NSW.

On the surface the paddock looks healthy but when we began doing random digging tests (for soil composition) we unearthed worms (great!) and these grubs — we are concerned as we uprooted at least 2 with each shovelful. This seems a lot to us . . . is it? On further investigation through the Agricultural Department, we found it to be the SCARAB BEETLE LARVA which feeds on grass roots (and has a liking for acacia and eucalyptus also). We've not had any luck finding information on treating this problem organically — only chemically drenching the soil with Chlordane or Carbaryl! It horrifies us to contaminate the soil with anything unnatural — we hope to grow our own vegies and plant native gardens with a pond down the far end. Can anyone help us control these critters (even though we hate to kill them)? Has anyone experienced something similar, and if so, did it affect your growing and how long before it improved (if at all)? Would adding more worms to the soil be helpful? Our tests were carried out all over the block — the neighbouring block has them also but to a lesser degree! Any insight into this little fellow's life would be greatly appreciated.

Just an extension to Barb McNeill's suggestion for pools and ponds (GR 67): I've just read an excellent book on constructing ponds, bogs, dams in gardens, paddocks, farms using native flora as the surrounds. It's called *Grow What Wet* by the Australian Plant Study Group and advises you on what plants, shrubs or trees to grow and how you can attract insects, birds and animals to your area by doing so. I borrowed it from a library.

This magazine is our link with the land — it's a lifesaver while we're in the city. Thanks to the *Grass Roots* staff for all your hard work and thanks to all who share the highs and lows of their lives with dreamers like us. We hope to join you one day! Take care all.

Ann Schwarzel and Greg O'Donnell
582 Henry Lawson Dr
EAST HILLS 2213.

Here's a good reason for encouraging birds to live on your property. Magpies and ibis love scarab beetle larva — ibis will eat up to 250 a day each, especially when the ground is wet as this brings the grubs to the surface.

Dear GR Readers,

This worn-out amateur story writer of 13 years old would like to know if anybody has information concerning WRITING COMPETITIONS for my age group. Also I'd like to hear from any people who have some good ideas for stories.

Joel Brooks
5 Fraser St
QUEENSCLIFF 3225.

The idea of finding a little block of land and establishing a self-sufficient lifestyle is very appealing but the chances of living happily ever after are often slim. As in other avenues of life challenges to happiness arise and their outcome is dependent upon the personalities of those involved and the resources they have at hand. Our lead story this issue chronicles the efforts of an average Aussie family to establish a healthier and more independent life. Like most battlers they used a lot of ingenuity and a lot of 'making do' to realise their dream. Sadly for them their utopia slipped out of their grasp and to date they are still looking for a satisfactory alternative. But they haven't given up and in their latest note to us spoke optimistically of finding another way of profiting from the opportunities life presents to them.

A Dream That Was

by I H Grosvenor, Geraldton, WA.

Life for us seemed to be one disaster after another. Losing my job, living in a series of dreadful houses without land on which to grow food, a family tragedy and another near miss, struggling to raise children with little or no money, all these combined were too much and my body gave out completely. Lying in hospital hooked up to all sorts of weird and wonderful gadgets gave me time to think seriously about our future. I was told by the medical profession that if I wanted to lead a long and useful life I had to find peace and tranquillity. But how? Many hours spent walking (and talking) in the bush with my wife Maryann not only gave us healthy exercise but also made us both more sure that we had to pursue our dream of a place to 'grow our own'.

The first problem was to find suitable accommodation. In a surprisingly short time we came across an old market garden at Wattleup, a few miles out of the Perth metropolitan area. We examined the place carefully and checked with the landlord before we moved in. He was only too willing to allow us a free reign, but he also made it clear that the place was ours as long as we didn't expect him to pay for any maintenance. The only contribution he was willing to make was to provide a rainwater tank and to clear a firebreak annually. We accepted happily and moved into our rural retreat.

The place was just what the doctor ordered. We suddenly found ourselves with no time to sit around and think as we were busy from the start. The shed had to be made secure so that I could store my tools, we had to master the intricacies of the pump which took water from the bottom of a 21 m (70 ft) well to the leaky old tank on top of the high tower, improvise a hot water system and so on. Axe-swinging muscles were rediscovered, cheap gardening tools were acquired. Once we discovered the extent of the old and neglected reticulation system we decided that a garden patch was a priority.

The first patch was cleared with the aid of a scythe and hoe. These two tools are much underrated but I can assure you that once they are both mastered they are very efficient implements. The work in clearing our first patch was the hardest we had attempted for years and by the end of the day we knew that we had been working — a hot bath was never enjoyed more! The day after that first attempt at clearing saw Maryann and myself unable to bend, so we enlisted the willing aid of the kids to plant the seeds. I scraped out a furrow with the hoe, Marika and Ian followed me with the seeds and Maryann walked along behind filling in the furrow. Our first planting consisted of a bag of boiling peas, a packet of popping corn and half a bag of potatoes that we had discovered behind one of the bedroom doors! After the seeds had been planted we turned on the sprinklers that we had so carefully scrounged from various sources and laboriously assembled, and stood back — they immediately clogged up with dead beetles and snails. For a few minutes chaos reigned as bits of wire were used to unclog the blocked pipes. We were decidedly wetter than the ground by the time they were all clear. The weeks that followed saw a wide variety of seeds go into our patch. Our enthusiasm was unbounded, and before the month was out the patch had doubled in size. Miraculously almost everything we planted grew.

Once the garden was well and truly underway we turned our attentions to building up a poultry flock. We were staggered by the multitude of varieties available, but after careful consideration decided that what we needed was a good sized bird that laid well, to provide both meat and eggs for the family. Remembering the bantams I'd had as a boy, I also thought it would be a good way to introduce the kids to caring for living creatures. We scoured the weekend papers for likely sounding birds, and the first ad we replied to was one for battery chooks. The half a dozen chooks which were our first purchase were a sorry looking lot and took a few days to get used to the idea of having more than a square foot each to move around in. They sat in the old tank and trembled with fear for the first day or so and even the sight of a dove landing in their pen was enough to send them scurrying for shelter. Their eggs were few and far between so we decided the only way to obtain good layers was to raise our own from day olds.

As day olds need special care and attention we bought a mother bantam with a batch of chickens, fondly imagining that she would serve as a surrogate mother for the intended batch of day old Sussex and Rhode Island Reds that were to follow. Maybe the size of the batch we bought was too much for her, but for whatever reason she rejected the day olds. I hastily cut an old forty four gallon drum in half and hung a strong light over the top of it to provide the warmth that chickens need. It served as a stop-gap until a more substantial brooder could be built, but at least they lived. Within a day or so I had built a better brooder for the chicks. The local tip yielded an old roof ventilator into which I fitted a light fitting and globe, a few feet of chicken wire provided a run in which the chickens could feed off the lawn, and they thrived.

With the chickens growing well we had to look ahead to the time when larger quarters would be needed. As the situation stood we had bantams housed in the old shed up the back; the old boards had been ripped off the front of the shed and replaced with tatty bits of wire. There were several ducks living in a rusty tank and a makeshift run stood at the end of the main shed.

Our main problem was a lack of funds to buy the

necessary building materials. After much official encouragement I finally plucked up the courage to apply for an invalid pension. This was immediately granted and our first payment of $300 seemed a real windfall. This was well spent: the car acquired a new set of tyres, the chainsaw gained a longer bar and chain, and a pipecutter and a roll of brand new wire was purchased. Our scrounging talents were by this time well developed and on our weekly tour of likely rubbish dumps we came across treasures that allowed us to build a set of very substantial and well shielded yards for our poultry. An added bonus was the fact that the iron we found provided us with a screen between our main working area and the road which ran along the front of our block, allowing us the privacy to perform most of our duties 'au naturel', the way we were originally put on this planet. A sign warned people what to expect if they ventured round the side of the house, and most of our visitors accepted this sign of our eccentricity.

The healthy active life we were now living improved our health. Our tans became full and natural and a feeling of wellbeing filled all of us. The newly acquired fitness encouraged us to become even more ambitious about our block; we could see the day when we would be almost completely self-sufficient and maybe make some extra money. We even paid a visit to the egg marketing board to see if we could expand our operations and supply free range eggs to them but they soon put paid to our ambitions in that direction — the red tape and regulations surrounding chooks and eggs were truly horrific. The only hope on the horizon was the possibility of concentrating on ducks and their by-products. For some reason the regulations covering chooks didn't extend to our web-footed friends, so we decided that the duck market could be more rewarding than the chook one. The demand for dressed ducks in our area was more than the one other producer could hope to meet.

We spread the word and were immediately inundated with orders from a local business, family and friends. To provide the cash to get started we culled a few of our chooks and sold them as dressed fowl — after much fun and games in the killing and plucking. This allowed us to buy another batch of ducks for resale and the next few weeks were a hectic round of buying live ducks and selling dressed ones. We eventually discovered the secret of removing the feathers without tearing the meat, and reduced the time it took to dress each bird from nearly an hour to about 15-20 minutes. The answer lay in the heat of the water (near boiling) and the teaspoon of washing up liquid which we added to each couple of gallons. The feathers practically fell out!

The work was very time consuming and messy and after some months of raising and dressing ducks we realised that it wasn't really the life for us. All of the work associated with the ducks kept us from other jobs around the place and so we decided to slow down a bit and just concentrate on growing two or three large batches per year. The cash which came from the initial flurry of duck buying and selling allowed us to invest in a couple of rolls of metre high netting to fence in a good sized area in front of the shed at the rear of the block. This gave the ducks a dry nesting area and plenty of room for daytime foraging. By that time we knew what to look for in ducks and soon had together a batch of decent sized birds to breed from. From there it was a matter of building up on egg



The benefits of a healthy outdoor lifestyle are quite obvious.

laying ducks for our planned foray into the duck egg market. Up until then we had concentrated on Muscovies as although not a true duck, they were recognised as the best source of duck meat. Our attempts to build up a flock of Pekin and Khaki Campbell ducks did not meet with as much success as the Muscovy side of the venture. The egg laying ducks were much harder to come by, and the few we did manage to acquire were hopeless mothers and very reluctant sitters. The Muscovies came to the rescue and acted as surrogates but that wasn't a longterm answer.

The only solution I could see was to build an incubator to hatch the eggs. An unsuccessful attempt was made to use an old oven for that purpose but the unreliable thermostats used in ovens caused us to abandon that attempt. We invested in a proper thermostat which we mounted in a chipboard box with light globes as heating elements. The only mistake we made was in setting up the incubator outside my daughter Marika's door. The first batch of eggs hatched right on time — unfortunately chickens and babies both seem to share the same habits, and they insist on coming into the world at unearthly hours. Small girls are compelled to share this miracle of new life with soundly sleeping parents!

Within eighteen months we had gone from being almost totally reliant on supermarkets for our food to the stage where we could sit down to a meal that was completely home grown. The plant growing side of our enterprise also did well but on one occasion lack of foresight had taken the pleasure out of harvesting one of our crops. I had had the brilliant idea that sunflowers sounded like a good way to make a profit. Our landlord obligingly cleared an acre of ground with just a few sweeps of his D9 bulldozer and we set to work. With a couple of kilos of seed in hand we set to work — I dug the furrow, the kids followed with the seeds and Maryann brought up the rear covering the seeds. They succeeded beyond our wildest dreams and within a few short months we had a glorious acre of yellow next to the house. If I had foreseen the effort involved in separating the seeds from the flower heads I wouldn't have bothered! It took literally days to shake them free from the sockets, we were swamped by bags of sunflowers. The return from a couple of kilos of seeds was colossal but automation is definitely called for in the final stage of harvest.



Wire netting and recycled tin provide nesting areas and foraging space for our mixed flock of egg laying ducks.

Unfortunately, just as all was looking well for us things changed dramatically. The well which provided all but our drinking water started to cave in and the pump refused to operate. As my hands couldn't grasp the rungs on the ladder that led seventy odd feet down into the bowels of the earth, we had to call in an expert who made temporary repairs but told us that more permanent work was needed if the water supply was to be maintained. His quote of $1500 to effect the necessary repairs had us reeling. Every other problem that had confronted us had been met head on and we had always coped well. This was different — never before had we been confronted with a problem that could only be fixed with a generous injection of funds. We obtained other quotes but the original quote was the cheapest. We approached the landlord with cap in hand but he stuck to his original word and refused to help us out. To him the land was little more than a future source of limestone (he was in the quarrying game) and to add to our woes he informed us that he could be requiring the land for quarrying within the next twelve months. He was quite pleased with the way we had managed his land but was definitely not prepared to pour any money into the block.

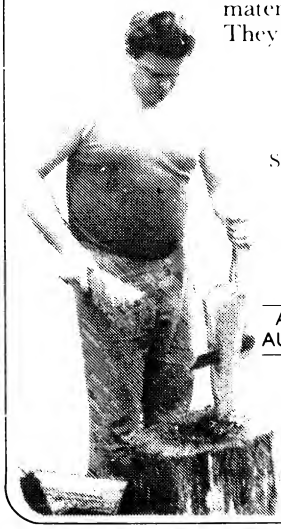
As we did not have the money to make the repairs, especially as we would have to move out within the year, a shift was the only way out. It was a heartbreaking choice but the only reasonable one to make. Unable to find any suitable place near Perth we decided to move to the Geraldton district, which boasted a good vegie growing climate. We also remembered the arthritis free years that I had previously enjoyed in that area. We now live in a State house which although it offers security of tenure doesn't give us much room to keep poultry or grow vegies. The change back to the old lifestyle has had a dramatic effect on my heart and arthritis. The freedom from pain is a thing of the past and jobs which could be performed with ease are now virtually impossible. We manage to keep going and try to keep a cheerful view of life but at times it can be very frustrating.

We remain optimistic that we may once again be able to rent a house with some land. Next time around we will aim for slightly different ends. Knowing that the natural lifestyle offers so much for arthritis sufferers we will aim to grow enough natural food for as many sufferers as possible. We also would like to offer a haven away from the artificial world for people who feel the need to recharge their batteries before heading back into the fray. These are dreams at the moment but we believe that in the long run God will provide the means for us to achieve our aims. Time will tell what the future holds for this family but we know that we are much richer for the time we had on the block at Wattleup.

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Self Hypnosis for Chronic Pain

By M J Bromley, Lathlain, WA.

So . . . the medical profession has poked, pried, pushed, pulled, pinched, punched, bent, straightened, turned, twisted, X-rayed, manipulated, squeezed and prescribed, and at the end of all that you're told something like, 'You've got to learn to live with it'. In my case, I was offered a tiny ray of hope in the form of the comment, 'It will begin to diminish in about ten to fifteen years!' I'm talking about that dull, never-ending, low-grade ache that resists all efforts — including morphine and alcohol — to dislodge it, and which drains you of the energy and will to live, in a very real and frightening way.

If you dare to ask for a specific diagnosis, you're likely to be given a long, strange medical term which sounds extremely dramatic and can instil fear into even the stoutest of hearts. Perhaps it was 'spondylosis' — frightening, isn't it, until you discover that that translates broadly into 'something wrong with . . . ' and your respect for the medical profession diminishes one notch further. What about 'arthritis'? Visions of being bent double, tottering on your walking stick or — horrors — being confined to a wheelchair for the term of your natural life, spur you on to seek a cure at all costs.

My own 'devil on my shoulder' began some twenty years ago when I was pregnant with my fourth child. I labelled the pain 'rheumatism' and left it at that for the following eleven years while I reared my little family. But the pain insidiously became worse. Finally I sought medical help. Without going into lengthy details, I'll simply state that for six years I rode the merry-go-round of medical expertise and, when nobody was interested enough to do any more than give me the tactful brush off, I tried alternative medicine. Nothing worked. Finally, I succumbed to prescription drugs. By this time I required them not only for pain and inflammation, but also for stress and hypertension. They helped — a little. I was also taking large doses of the proprietary painkillers, and drinking a couple of glasses of sherry each evening to help me to relax at the end of the day, and to help me to sleep at night. Oh, I was a sorry picture!

During the winter of 1986 I reached crisis point. I had injections of morphine and pethidine, was confined to bed and required nursing for almost a week on one occasion. That experience almost finished me. I contemplated suicide, but something inside of me prevented me from carrying out my intentions. Instead, when the pain intensified again a few days later, I contacted the Mental Health services. I wanted to try just once more — this time with self-hypnosis. Was there a qualified practitioner who could help me, I asked.

This was when the fun began. Out came my old records, accrued during two breakdowns due to total exhaustion when my marriage fell apart, and I was told that I would have to undergo psychiatric testing to see if I was suitable for self-hypnosis. In other words, was I sane? So I underwent two cross-confirmatory tests which, in the words of the clinical psychologist testing me, confirmed that I was 'so boringly normal, you have no right to be in my office — I only treat mentally sick people!' Thus I was certified sane. Well, what else did they expect? (I've observed that if an individual dares to deviate from the conventional, mass-mind, rut approach to problems, he or she is promptly labelled as odd, eccentric or mentally unbalanced. So, if you wish to be accepted as a member of society, don't be different i.e. too much of a thinking individual!) At least these powers-that-be admitted the tests showed that my pain was indeed very real, and not hypochondria or a figment of my imagination.

This is how I came to meet Dr D....., a practising psychiatric hypnotist with medical expertise, which meant that he was qualified to understand my back problem as well as teach me self-hypnosis. Oh, the misconceptions which abound on the subject of hypnotism! For one whole year at fortnightly intervals I visited Dr D..... and we just talked. No couch — just a fairly comfortable recliner which I used on only a couple of occasions. No waving of watches before my drooping, hypnotised eyelids. No invasion, manipulation or 'taking over' my own mind and will — which is the one misconception which most terrifies people. We just talked. Dr D..... made one tape recording in the early stages, to help me sleep in spite of the pain, and later he made a second tape to be used whenever I wanted a short period of 'time out' during the day. They helped, but essentially I did all the work. I taught myself self-hypnosis — and I didn't know I was doing it! Only when I began to report back to Dr D..... on the things and techniques that I had discovered apparently by myself, and he would pull out one of his psychology books and read out the very thing I'd reported, did I realise what was happening. So essentially Dr D..... wasn't teaching me self-hypnosis so much as helping me to delve deep into myself, to get to know myself so that I could uncover — and discover — my own techniques to cope with the pain. But I also learned a few natural laws concerning pain.

Pain is exacerbated by tension. This tension may be a chronic condition stemming from a deeply hidden trauma, hurt or injustice in one's past. Certain things in everyday life trigger subsconscious recollection of the event, and the instinctive fight-or-flight tension comes into play. Let me give an example. The shadow of an aeroplane flying overhead invokes a dramatic reaction in me because, during WWII, the shadow cast by a flying bomb (doodlebugs, they were called) was often the first warning sign of their presence. On one occasion, in North Perth in 1963, a plane threw a shadow over me and I only just managed to prevent myself from falling full length at the base of a brick wall — just as we had been taught to do during the war, as children. This shows the kind of mess we so often have hidden deep in our subconscious — and which often needs to be brought out into the open, faced, understood and if possible resolved. Which is why I believe it's so important to learn self-hypnosis with the help of a properly qualified practitioner, who will help you to stay on an even keel during your subconscious 'springclean'.

Of course, not all tension is due to past experiences. Someone can make a catty remark which makes you very cross, you get all tensed up, fume out to the woodpile and, hey presto! Out goes your longsuffering back. One has to learn to distinguish between the negative, damaging tension just illustrated, and the positive tension of relaxed muscles, ligaments and tendons properly used in their right order. And don't be trapped into thinking flabby is the same thing as

relaxed. Flabby means out of condition. If your muscles are flabby, start gently and tone them up a bit, even with just a few circuits of the woodpile before you lift the axe. Then know when to stop.

So, Rule No. 1: relax. 'Torture' experiments carried out on a group of volunteer nurses in England recently confirmed that those who were able to relax experienced far less pain and consequent shock than those who did not relax. Fear of pain may be the very thing that makes it worse, and the same goes for your pain, since fear produces tension. So relax.

Then I discovered Rule No. 2: understand. If this involves taking a short course in anatomy with the use of a library book, that's fine — as long as you get a clear picture of the way the painful part of you anatomy is constructed, how it works and, if possible, how the pain is caused. You will then be able in many cases to modify the way you do your everyday work so that the risk of aggravating your pain is greatly lessened. Do you lift heavy items properly for example? Have you checked? You could be in for a surprise. This is how you get the necessary understanding to cope with your pain.

Rule No. 3: experiment to find the technique that best helps you. You are a unique individual. There isn't another person on this planet — or anywhere else for that matter — who is exactly the same way. If you are able and willing to take 'time out' for just twenty minutes during the day to contemplate quietly (and, need I mention it, while relaxed) on your unique relationship with the universe, life and God, you may at the same time like to start experimenting with three self-hypnosis techniques I discovered that work for me. They may work for you too. If they don't, modify them a little to suit your needs and then try again.

Technique No. 1: Dr D..... introduced me to this one on his tape recording. Lie or sit in a relaxed position which minimises the pain. Close your eyes and take a slow, comfortable deep breath. Hold it for a count of four or five. Gently let it out for a count of four or five. Repeat this deep breathing four or five times, with each breath 'letting out' a quarter or a fifth of the pain. When the pain is thus greatly minimised, remain comfortably relaxed for a few minutes — enjoy the comfort and relaxation — before slowly and gently getting up and resuming your activities. (This exercise has the added benefit of changing the body's acid nature somewhat to alkaline, apparently, in the same way that drinking alfalfa tea or eating fresh fruit and vegetables does.)

Technique No. 2: this is a good one. Each day, give yourself a number between one and ten on an imaginary chart. On this chart, one to three registers slight or minimal pain, four to seven registers moderate pain, and eight to ten registers severe pain. The number you give yourself is the amount of pain you're permitting yourself to have. You'll be surprised how your number drops after a few days.

Technique No. 3: another good one, particularly applicable to that first-thing-in-the-morning pain that colours one's whole attitude for the rest of the day. When you get up and you're sore and stiff and hurting almost all over, give the pain permission to hurt for, say, half to one hour. During this time don't dwell on the pain,but don't treat it as if it doesn't exist either — it does. That's one of the natural laws of this physical universe and pretending that pain doesn't exist is not facing up to reality. But we *can* learn to become master of pain, instead of staying a slave to it. This is what self-hypnosis is all about. So let the pain exist for half to one hour. During this time, treat yourself kindly, gently, with love and understanding, with compassion. (This does not mean self-indulgence, mollycoddling or an excuse for loads of maudlin self-pity — there is a difference!) Do some of the easier jobs if you like. Feed the cats, make a warm drink, take a slow, appreciative walk around your garden, take things easy and get ready to actually enjoy your day's work and experiences. Keep yourself warm. This is important. Consider taking a hot shower — absolutely wonderful for that early morning pain.

When your half hour to one hour is up, you should feel much more free of pain and able to get on with enjoying your day, chores and all, because you started your day on a positive note in spite of pain, feeling relaxed and warmly loved. It's not wrong to love oneself this way. Jesus said, 'Love thy neighbour as thyself'.

Please don't expect miracles overnight. Give each technique at least a week before condemning it as useless. After all, it took me a year to get to my present stage of success with them. Whether or not you believe it, these techniques are all self-hypnosis! You definitely do not require long, trance-like sessions in which you order your subconscious about like a sergeant-major, force conditioning it to do what you think it should be doing. I've come to regard self-hypnosis, properly learned and used, as one of the natural, God-given gifts to help us live a fulfilling, enjoyable, productive and happy life — in spite of pain. May the blessings be!

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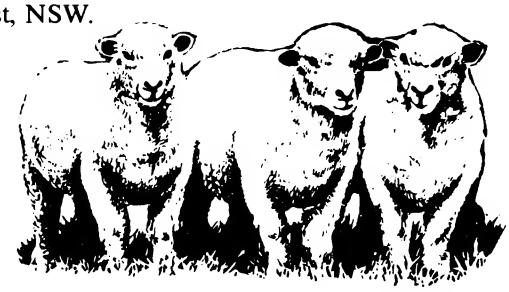
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SHEEP FOR SMALL ACREAGES

by Geoff Stannard, Bathurst, NSW.

Sheepfarming is a great Australian tradition, and when considering stock for a small farm, sheep are usually the first on the list. But beware, they cannot be placed in a paddock and forgotten. They must be inspected regularly, and the owner must have a detailed knowledge of the problems to be expected in a particular area, and with a particular breed. Good management can be learned, however, and sheep are interesting and worthwhile livestock, especially if you are a spinner. So let's consider the management requirements of sheep so you can see whether they will suit your property.



SPECIAL REQUIREMENTS

Fencing

Good quality fencing will keep the sheep inside their paddock, otherwise animals will be wandering the road or into other properties. Sometimes, too, there needs to be a number of paddocks to allow for control of parasites or to keep rams separate from ewes. A simple, effective fence can easily be constructed using prefabricated wire, strained tightly, with a single plain wire on top. Use strong strainer posts at each end of the fence, and steel posts at intervals in between.

Feed and Water

Most Australian farms will carry sheep, but the number per hectare will vary with the quality of the feed and the fertility of the soil. The basic stock unit is the wether, and wethers eat much less than a breeding ewe who is pregnant for five months of the year and feeds a lamb for two months after that. Obviously ewes need more care and more feed of better quality. The easiest way to find out the stocking rate of a property is to ask the opinion of a neighbour. The stocking rate can usually be increased by sowing an appropriate mix of clover and grasses, by fertilising the pastures regularly, or by correcting any mineral deficiencies in the soil.

Sheep drink up to five litres of water per day, and double this in hot conditions, so they need a constant supply of good quality water.

Shade and Windbreaks

Sheep need shade from the hot sun in summer to prevent heat stress, so paddocks should be structured to include some large trees wherever possible. In the colder months, windbreaks prevent chilling after shearing (there are often high losses from chilling when a cold snap occurs at this time), and young lambs need the comfort of a windbreak to reduce loss of body heat in the first week after birth.

Minerals

Mineral deficiencies occur in many areas and may not be immediately apparent. As far as sheep are concerned, the most important deficiencies are copper, cobalt and selenium. Advice on the occurrence of deficiencies in any area can be obtained from local farmers, stock and station agents, veterinarians or government agricultural officers. It is better to check soil quality before building up your flock, rather than waiting until health problems appear.

Dogs

Sheep kept on properties situated close to suburbia usually face the problem of marauding dogs. Anyone with a pet dog of reasonable size will tell you that the animal is perfectly trustworthy and would never hurt a sheep, but at night, it is a different matter, especially when several dogs roam together. In this situation it is preferable to stock your property with cattle.

CHOOSING STOCK

Sex

Sheep can be kept as wethers or as breeding ewes. Wethers are emasculated males and are the easiest to stock as all they grow is wool, so there are no management problems associated with lambing, keeping rams, and the need to provide higher quality feed. Wethers are shorn once per year (twice for carpet wool sheep), can use feed of poor quality and need very little management. In Australia, the poor country is usually stocked with Merino wethers.

Breeds

The available breeds fall into categories — British, Merino, carpet wool and crossbreeds. Wool and sheepmeat production is based on the Merino in Australia. Merino wethers are used for both wool and mutton. Merinos are bred to Border Leicester rams to produce crossbred ewes for lamb production in the higher rainfall areas. These crossbred ewes are mated to British breed rams and all the lambs sold as fat lambs. When selecting a breed or crossbreed, consider the fertility of your farm, the rainfall, the type of sheepfarming carried on in your area, the time available and which sheep you like. Choices can be made between stocking wethers, breeding pure Merinos, stocking Merino ewes and using Border Leicester rams, stocking crossbred ewes and breeding fat lambs or producing carpet wool with either wethers or a flock of breeding ewes. If considering properties in different areas, those with lower rainfall would be at the Merino end of the scale, while the higher rainfall would indicate an investment in carpet wool breeds.

Stud Stock

Stud stock often offer a better return per head. When considering breeds, try to ascertain if there is a strong conservative element in the breed society. If so, newcomers may find it difficult to sell their stock as buyers will consistently support recognised breeders and be suspicious of those whose reputation for producing quality stock is not yet established. New breeds, like the carpet wool breeds, are usually free of this problem. Stud breeders may also have to show animals to gain a reputation or publicise their stock. Showing is an excellent way to gain knowledge, but can be time-consuming and expensive.

Coloured Sheep

Production of coloured wool and breeding stock may be quite a

worthwhile project, though it puts you right outside the established commercial system and demands a strong marketing approach. Research to find what types of wool the market needs: you can produce it and sell directly to the end-user. If you are not market oriented, though, this approach could lead to a loss if you purchase expensive breeding stock, cannot sell the produce, and have to sell the sheep in the saleyards. You may of course wish to keep only a few of this type of sheep, just enough to provide fleece for your own spinning, with perhaps a little extra to sell. Coloured sheep must be watched carefully for signs of flystrike.

Buying Stock

If only a small number of sheep are needed, they can easily be purchased from a farmer in the vicinity. Otherwise sales can be attended to check price and quality. Stock and station agents can be of some assistance, but it is always helpful to have a local farmer with you the first time as an advisor. Be careful of old sheep, or those that are limping — foot problems can indicate footrot. Don't listen to any stories about sheep with foot problems, keep your hands in your pockets and save your money. If you want stud sheep, they can be bought at stud sales or direct from breeders.

HANDLING

Sheep must be inspected frequently, so a serviceable set of yards is required, and these can be made using Weldmesh and steel posts. If sheep seem to move slowly through them, old galvanised iron can be wired to the outside so the animals can only see ahead, and not be distracted by looking sideways at the sheephandlers.

A weatherproof shed is necessary for shearing. When each sheep is shorn, the fleece is thrown out onto the table for classing, then placed in a bale for pressing. So apart from the shed itself, shearing equipment, a wool table, and wool press will be used once per year. The equipment may be borrowed, but it is best to have your own yards and woolshed as farmers are loath to lend their facilities, fearing your sheep will have lice or foot problems that will spread to their own flock. If you have only a few sheep, however, fleeces may be placed into bags unpressed and sold to a wool buyer.

MANAGEMENT

Shearing

What is amazing about sheep is that they will produce wool regardless of the quality of the feed. However, if the feed is poor, the wool will be too, so do not overstock. Each sheep must be shorn once per year and carpet wool breeds must be shorn at least twice. Carpet wool sheep produce hair which can grow so quickly, it has to be harvested more often.

If you have more than thirty sheep, the shearer needs to be contacted well in advance, but a smaller number can be shorn during the weekend. Ask about rates for public holidays and weekends so the cost is clear before work commences.

Crutching

Sheep are crutched before lambing, or early in spring when the grass is fresh and there is a chance of the wool around the tail being soaked with faeces, which leads to flystrike. Crutching involves the removal of the wool around and under the tail. It is usually carried out by shearers.

Marking

All lambs have their tails removed to prevent them being killed from flystrike, and the ram lambs are castrated. This is easily accomplished using rubber rings and an applicator from the stock and station agent. As soon as possible after lambing is completed, the lambs and ewes are yarded and marked, injected, and ear tagged if desired.

Feeding Hay and Grain

To bring stock up to optimum condition for mating, or to tide them over times of shortages in paddock feed, hay and grain can be fed. Wethers are not usually fed unless there is absolutely no feed available, but ewes and lambs are often fed to bring them up to peak condition. This mostly occurs in late summer before the pasture has grown in response to early autumn rain. Ewes may also be fed if they lamb in late winter and the feed is not of sufficient quality to enable them to milk well, or even in the last month before they lamb, to keep their nutrition up when the growing foetus is taxing their reserves.

When buying hay, keep in mind that it should be a mixture of grass and clover, and not musty. The usual grain to feed is oats; beware of feeding wheat to sheep, they need time to become accustomed to it, and it must be fed with a calcium supplement.

Part II next issue will cover further aspects of sheep management, including breeding practices and organic methods of dealing with common disease problems.

CONFEST 89

From Dec 29-Jan 2, Down to Earth of Victoria will be holding a ConFest on a rural site on the Murray River near Walwa, about 60 km upstream from Albury/Wodonga. GR people will find much there to interest them and to enjoy. Over the past few years DTE has held several ConFests (an amalgam of Conference and Festival) where people interested in alternative and self-sufficient ways of life gather for four or five days of workshops, informal music, swimming, good food and companionship in a relaxed, happy atmosphere.

The centre of ConFests are the free workshops, in which people can share their experience or expertise simply by putting their notice on a central schedule board at the Information Centre. The topics depend on the people who come to ConFest, but in past years have included meditation, building in mudbrick, alternative energy, massage, yurts, belly dancing, South American pipes and alternative medicine.

There's always plenty to do at ConFest swimming, for example. Many people bring their own musical instruments to ConFest for impromptu sessions, and one or two professional groups may play in the evenings. Informal outdoor dancing sometimes lasts far into the night. The market area is another regular feature with all sorts of craft and other goods for sale — batiks, pottery, crystals, and woollens. Craftspeople can arrange with DTE about a table for selling. There are also many delicious vegetarian foods for sale and fresh vegetables and fruits are generally available too.

Most people who come to ConFest bring their own tents or camper-vans. DTE puts up large tents for the workshops, and also supplies drinking water, wood and cooking sites, shower and washing facilities, toilets, and electricity for the market. Be sure to bring your own plate, cup and cutlery to ConFest, as DTE has a policy of not allowing disposable containers. Pets are also not permitted.

The cost of the ConFest is $45 at the gate. Early Bird tickets ($30 until Dec. 9), further info. and maps to ConFest site obtainable from Down to Earth, PO Box 1234, Nth Richmond 3121.

Natural Paints and Finishes

by Dieter Groening, Bridgewater, SA.

Natural building and living is becoming increasingly more important to counter the plethora of chemical materials used in modern construction and lifestyles. We spend more time indoors than in the past, and our walls have become a 'third skin', playing an important role in our living environment. It is therefore important to look for building materials which do not harm humans and pets and which promote a healthy lifestyle.

We have incorporated many new technology products into our daily lifestyle. Slow, continuous poisoning of an environment has been the unfortunate result of a chemical consuming society. We are just now awakening to this self-inflicted threat to our own wellbeing. More and more the question of, and desire for, natural products arises — products which are harmless to us and to nature, which bring our needs and nature's into harmonious balance. We must strive to assist nature to supply our needs without overstraining the resources of our planet.

There are are a great many high technology efficient wood preservatives, paints, varnishes, cleaners etc. on the market today. Past developments have been dependent on the chemical industry, oriented towards industrial norms, with a basis in scientific demands and research. As in the pharmaceutical industry, product side effects have remained undetected or generally accepted as a normal aspect of our life style. Fifty years of this attitude have culminated in the health dilemma which stands before us. We and the rest of nature are dangerously threatened by the consequent allergies, abnormalities and mutations, and poisoning of the natural and home environments.

Wood preservatives generally contain well-known highly poisonous substances, including polychlorinated phenols (PCP and its derivatives), organic compounds such as tributyltinoxide (TBTO), and chlorinated carbon compounds such as chlordane, dieldrin, dioxin, and lindane. These contact poisons are drastic environmental dangers, especially since they are not biologically degraded to non-active forms, and may be broken down into even more deadly compounds. The poisonous effects of these chemicals in different concentrations to humans, animals and plants are currently being described.

What are natural products? For me, the term natural products has two principal criteria:

- The raw materials must be acquired without over-exploitation of nature, and must be of a reproduceable standard.
- The manufacture and handling of the products should not contribute to the depreciation of nature, nor should their natural quality be degraded.

Wood must be protected from insect infestations, as well as wood-destroying and wood-discolouring fungi. It must also be protected from UV light, weather and environmental stress, as well as mechanical wear and tear.

Natural paints, varnishes, polishes and wood-preservatives are now available in Australia. They are manufactured with the current state of chemical and poison knowledge in mind. Only raw materials with the following characteristics are used:

- those which can be produced from nature and readily replenished, oils, resins, waxes, balsams and plant pigments
- those which through all-natural processes acquire high quality technical properties
- those which produce harmonic colour spectrums via their natural pigment components
- those which after production can be returned to the natural cycle
- those which cause only the most trivial effects on workers and environment through production and use
- those which produce insecticides and fungicides which rapidly repel and eventually eradicate the infestation
- those which do not threaten the user's health.

Through close control of raw materials, analytical and microbiological tests, testing for practicality and effectiveness, these products have proven to be of a high natural purity. They are produced only with natural materials, using the innate characteristics and qualities of these ingredients, with the objective of optimal health conditions. When used as prescribed, these products can be as durable and stable as the traditional chemical products. When accompanied by procedures of comprehensive natural living and building these standards may even be surpassed. Thus, the above specified criteria apply equally well to the production of wall paints, varnishes, lacquers, polishes, care and cleaning materials.

The result is a range of non-poisonous, low allergy products which allow surfaces to breathe. Instead of potentially dangerous solvents, heavy metals or pesticides they contain natural pigments, resins and fungicidal herbs. These products help to maintain the health and balance of nature, while providing protection and care for the house, yard, garden and human beings.

For further information please write to: BIO Products Australia Pty Ltd, 25 Aldgate Tce, Bridgewater 5155. Ph: 08-339-1923.

HANDY HINT

Suspending plastic netting from early on over cabbages and their relatives will help prevent cabbage worms.

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Installing Your Own Low Voltage System

by Don Pearce, Bocoble, NSW.

Having spent quite some time installing alternative power systems I would like to comment on some of the common problems that I have found and suggest solutions to these problems. This is not a commentary on 'how I installed my system' but rather advice to draw from when building your own system. The advice is given from experience gained both as an initial installer of various systems for other people and from coming in to correct mistakes that already exist.

PROBLEM AREAS

Battery/Regulator Positions

Install batteries as close as possible to where the power is going to be used. Under the centre of the house is ideal if sufficient space exists beneath the floor. The batteries need to be protected from both excessive heat and cold, particularly in snow/frosty areas. The regulator should be mounted where it will be the same temperature as the batteries, not in direct sunlight, as it adjusts the charge according to the temperature.

Battery Type

Many people who require just one light start with an old car battery which is connected up to the car to charge it periodically. While this may work for a while it is inevitable that eventually more lights or gadgets will be added and the battery will deteriorate quickly. Car batteries are designed to give a large current for a very short time, seldom if ever going below about 5 percent discharged before being recharged. As a battery deteriorates it gives less power out for the same time spent in charging. A new battery charged at 10 amps for 5 hours will supply about 40 amphours before reaching its precharging state (20 percent charging loss). The same battery at the end of its life will only supply 20 amphours before reaching its precharging state (60 percent charging loss) i.e. the battery appears to go flat much quicker. When charged by an alternator in a car or from mains power this can be partly corrected by charging for longer, but when you need to have twice the number of solar panels to compensate it becomes cheaper to replace the battery. In other words anyone who experiments, to see if solar power will work, and does not use good batteries will be doomed to failure before they start. Deep cycle batteries, on the other hand, are designed to be discharged up to 80 percent of their capacity before being recharged, and if cycled between 30 and 80 percent of charge up to 90 percent of the charging power is available on discharge (10 percent charging loss).

Many people just connect extra batteries together to increase the battery capacity. While this works there are some potential problems of which to be aware. A bank of batteries wired in parallel is only as good as the weakest cell. If one cell fails then that battery will take most of the charge, never reaching an adequate charge and going flat very quickly. This problem can be reduced by giving each individual battery an equalising charge periodically — charge at 10 percent of battery capacity for 20 hours. If a battery bank is not performing correctly then test all cells with a hydrometer. Remove any battery with weak cells and the performance should improve.

For larger systems consider making up your battery from individual 2 volt cells of sufficiently large capacity. If one cell fails it can be replaced much more cheaply than the cost of replacing a complete battery.

Battery Capacity

As mentioned earlier people inevitably increase their power usage when power becomes available. If the batteries are only just big enough to supply each day's needs then they will be useless on cloudy days with solar, or windless days with wind power. If they are just big enough for two days then as they age they will only last for one day at the end of their life. When working out what size of battery to use it is important to anticipate reasonable increases that can be expected, then to allow for cloudy/windless days as required. With solar it is usual to allow for 5 days of 'no sun'. Generator charging systems should allow for 2 days of no fuel.

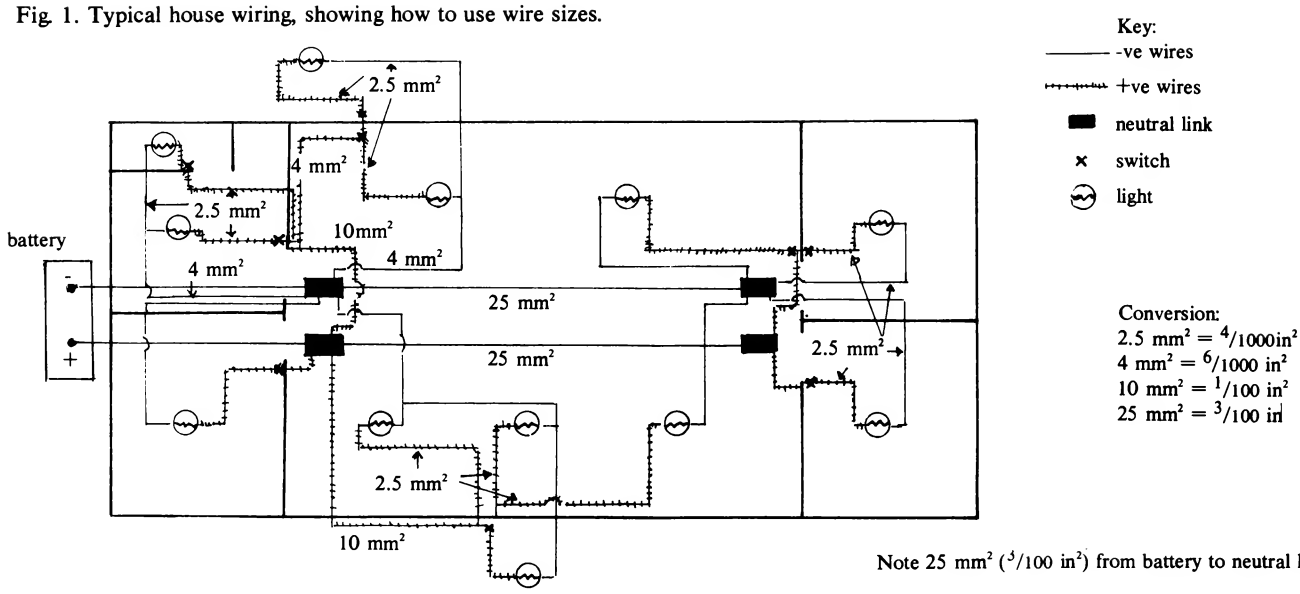
Wiring/Joints

Inadequate wiring is a common problem, leading to dimming of lights when another appliance is turned on, the steal syndrome and complete failure. The steal syndrome is sometimes seen with fluorescent lighting where when a second light is turned on the first one goes out and if turned off then on again it relights but the second one now goes out. Failure to operate affects such things as TVs with a low voltage cutout and motors which can overheat and burn out at too low a voltage.

First a little explanation for the technically minded. All conductors resist current flowing through them. The resistance depends on the size of the conductor, its length and the material that it is made from. This is able to be calculated using the formula V(oltage drop) = R(esistance x I(the current flowing in amps). If a copper wire 40 m (130 ft) long and 1 mm^2 ($^1/_{1000}$ in^2) has a resistance of 0.25 ohms then if 8 amps is being drawn (approx. 100W at 12V) then the voltage drop along the wire is 2V i.e. the appliance only has 10V to operate. If the wire is twice the diameter the resistance is ¼ (of 0.25) and the voltage drop is only ½V, and the appliance has 11.5V to operate. If the wire is only 20 m (65 ft) long and 1 mm^2 ($^1/_{1000}$ in^2) then the resistance is ½ (of 0.25) and the voltage drop is 1V. As you can see, if the wire is only 20 m (65 ft) long and 2 mm^2 ($^3/_{1000}$ in^2) the voltage drop would only be ¼ volt.

It is obvious then that the shorter and thicker the wires the better the system will operate, however cost stops us from using the ideal wire sizes. Sometimes it is possible to obtain offcuts of larger wires from scrap metal merchants. I managed to get 3 x 30 m (100 ft) of 70 mm^2 ($^1/_{10}$ in^2) wire (approx. 12 mm/½ in diameter) for $30. The following suggestions are for a standard 3 bedroom house using low voltage (<24V) for lights, TV, radio, fridge and sundry small appliances (see figure 1). In order to reduce wire lengths try using very thick heavy cable e.g. 16-25 mm^2 ($^2/_{100}$-$^3/_{100}$ in^2) to run from the batteries to distribution points close to where the power is to be used. From the distribution points use building wire (a central conductor covered with only one plastic sheath, suitable for low voltage wiring but not to be used for 240V) of the following sizes: 10 mm^2 ($^1/_{100}$ in^2) to fridge and loads of

Fig. 1. Typical house wiring, showing how to use wire sizes.



Note 25 mm² ($^3/100$ in²) from battery to neutral links.

more than 10 amps; 4 mm² ($^6/1000$ in²) for loads between 4-10 amps and 2.5 mm² ($^4/1000$ in²) for loads less than 4 amps. To reduce the length of the wire run one wire from the distribution point to the switches and back to the light and the other wire from the distribution point to the light. For the distribution points neutral links (available in 7 and 10 hole from your local electrician) are ideal.

Other Problems

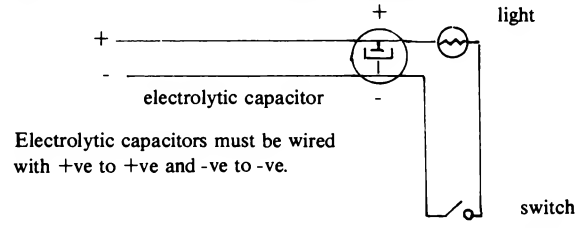
A number of other problems can occur with wiring e.g. electrolysis is a problem with DC systems particularly in moist seaside areas. The metal may also oxidise in exposed joints and the oxide acts as a high resistance. Both these problems can be solved simply by soldering all loose joints, soldering wire ends to terminal lugs and soldering ends that go into neutral links, then doing the retaining screws up very tightly. If you don't solder then at all costs avoid using dissimilar metals together. The best combinations to use together are copper and brass. Clean joints regularly with a wire brush to remove the oxide coating e.g. battery to lugs each 3 months. Use a weak solution of bicarbonate of soda to clean where battery acid has been.

USING EXISTING WIRING

For people using existing wiring i.e. in houses wired for 240V where it is not feasible to replace the wiring, there are a number of points to keep in mind:

- If possible run from the batteries to the existing wiring with a large cable and connect to the present wiring close to the point of use or at two points at opposite ends of the house.
- Reduce the current drawn by using a higher voltage system e.g. a 36W light at 12V draws 3A while the same light at 24V draws 1.5A.
- Reduce the current drawn by using higher efficiency lighting e.g. a 16W 2D light draws 1.33A at 12V and gives the same light as a 40-50W incandescent light which draws 3.5-4A at the same voltage. While discussing lights it is worth noting that low voltage fluorescent lights do not present the same problems as 240V fluorescents. The 50 cycle flicker at 240V that causes some people headaches is not present on low voltage units. Also the colour of light (hard white) of standard tubes has been significantly altered in the very high efficiency lights. The 2D, double D and U tubes are a yellow light very similar to incandescent lights and the circolux tubes although white are more pinkish. The U tube and circolux lights also fit standard bayonet light sockets. These lights are also more cost effective in solar systems than incandescent lights. Although it may only cost $7 for an incandescent light globe, a 40W light will run for about 5 hours from one 40W solar panel. To run 3 lights for 5 hours would cost three panels at $450 each plus 3 lights at $7 = $1371 plus batteries and regulator. To run 3 x 2D lights giving a similar light would cost 3 lights at $75 plus one panel = $675 plus battery and regulator.
- The steal syndrome can often be eliminated by placing a 2000+ microfarad electrolytic capacitor (available from an electronics supplier like Tandy or Dick Smith) as close to the light or appliance as possible before the switch (see figure 2).

Fig. 2. Where to fit an electrolytic capacitor.



In conclusion let me say that a well set up alternative system is a pleasure to use, while one that is poorly designed and set up is at best very frustrating.

If anybody has any particular problem that they would like assistance with I will be happy to answer their queries provided they include a stamped self addressed envelope. Write to Solar Electric Supplies, Bocoble 2850.

See p. 22 for Don's thoughts on future battery technology.

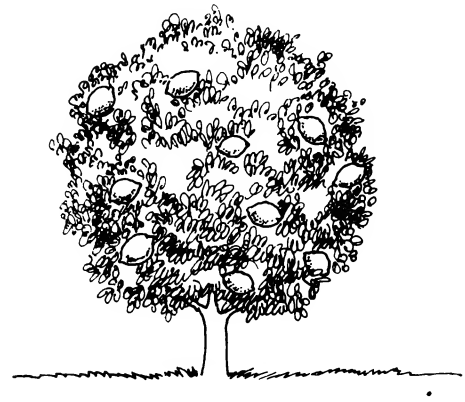
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What's Killing Your Lemon Trees?

by Nevin Sweeney, St Clair, NSW.

I recently read a letter in GR 65 about lemon tree problems and can empathise with the writer. Lemons are such useful fruit that every household should have a plentiful supply, and it's very frustrating when your carefully planted and lovingly nurtured tree expires without producing the goods. I have only my backyard, not a large orchard area, but still managed to kill two lemon trees before I found what I was doing wrong and saved the third. My other citrus trees (orange and mandarine) were OK but the lemons insisted on dying.

The manner in which the leaves go yellow can tell a lot about what is wrong with the tree, so without more detailed knowledge of your circumstances I can suggest three things that may be wrong.



WET FEET

If the drainage on your land is poor, there is plenty of clay or marl, or some other reason why water cannot get away, the roots remain wet. This encourages a fungus called *Phytophthora citrophthora* which causes root rot. The symptoms of this are that the leaf veins yellow first, leading to general yellowing and leaf fall, and the tree may eventually die. Phytophthora-resistant rootstocks may help e.g. Trifoliata, but removal of the cause by improved drainage is the only real answer.

WRONG SOIL pH

Use of a pH meter or a soil test is the best indication of this problem. If the soil is too acid, dolomite (a mix of calcium and magnesium carbonates) will raise it. The best pH is probably 5.5-6.5 although this range is favourable to Phytophthora. If the pH is too high i.e. too much lime has been used on the soil previously, a condition called lime-induced chlorosis occurs. This is due to iron in the soil being chemically bound and unavailable to the plant at high pH. This causes the reverse of wet feet: the leaves are yellow but the veins remain green; again leaf fall and death can result. To reduce the pH powdered sulphur, aluminium sulphate (alum), sulphate of ammonia or large doses of organic matter may be used.

NUTRIENT DEFICIENCY

Plants require a number of chemical elements to function properly and a soil which is rich and good for growing plants and trees contains all these things. If only one of these elements is in short supply or absent the whole tree may suffer (as with vitamin deficiencies in humans). The various deficiencies have their own symptoms, which I've summarised here:

- Nitrogen — leaves are pale green and new growth is small, old leaves fall readily.
- Phosphorus — general bronzing of foliage.
- Potassium — 'burnt leaf' occurs, a banded pattern with the leaves being green at the base then yellow, then brown and dead at the tip. The old leaves fall readily.
- Magnesium — yellow leaf and leaf drop develop as the fruit ripens.
- Zinc — mottling of the leaves and reduction in size of new leaves ('little leaf'), worst on sunny side of the tree.
- Manganese — mottling also occurs, worst on shady side of tree; leaf size is normal but if deficiency continues small, curled and beaked leaves develop.
- Boron — water soaked spots occur on the leaves and lumpy fruit is also seen.
- Sulphur — similar to phosphorus or nitrogen deficiency with mid-rib yellowing.

To correct these deficiencies the element may be added by itself e.g. magnesium sulphate if you suspect a magnesium deficiency, or you could use a complete fertiliser. Chook manure is high in nitrogen, potassium and phosphorus so you might want to use this, and Hortico bring out a mix of trace elements if the symptoms persist.

I hope this is of some help to you, I learned a lot by doing an agriculture course through the NSW External Studies College of TAFE (correspondence). I assume a similar setup exists in other states. The classic work on this subject (now out of print unfortunately) is *Citrus Growing in Australia* by F T Bowman, published by Angus & Robertson. You may find it in second hand shops or libraries. I can also provide more detailed information if needed, but this brief outline should at least help to diagnose the problem. Long live your lemon tree!

BATTERY OF THE FUTURE

by Don Pearce, Bocoble, NSW.

Recent developments in battery technology at the University of NSW have resulted in the development of a vanadium battery. This battery (which is not yet commercially available) promises to be cheap, have a very long life — up to 25 years — and be able to be instantly recharged by changing a tank of non-corrosive electrolyte on the side on the battery. This raises the possibility of having recharging stations like petrol stations where you drive in your electric vehicle with a flat battery and drive out fully charged 10 minutes later. The station then recharges the electrolyte and 14-16 hours later 'sells' the recharged electrolyte to another customer. Anticipated battery prices are about $500 for the equivalent of 500 Ah at 24V (compare with lead acid approx. $4000). Extra electrolyte should cost less than $50 for each recharge. The electrolyte can also be recharged from solar power which means that you can charge up extra electrolyte over sunny days and then use it to recharge the battery in periods of extended cloudy weather. My feeling is that commercial interests will mark up the prices so they are similar to lead acid batteries. Commercial release is expected in 2 years.

NEW VEGIES FOR SPRING SOWING

Now that winter is over, the trees are blossoming and the days getting longer, those of us who enjoy gardening will be itching to tackle the vegie patch. There is a wonderful variety of seeds available, and to get those taste buds flowing we have chosen a few of the latest offerings from some of the popular catalogues.

NEW VARIETIES

Beetroot

Kings Seeds have a very interesting beetroot called Choggia after the region in Italy where it originated. It is a sweet round beet with a red skin and concentric rings of red and white flesh. Seeds can be sown from now until February in colder regions and up to the beginning of April in temperate zones.

Cauliflower

Both Diggers and Kings Seeds have a purple headed cauliflower. This should inspire any cook who enjoys colourful presentation of food. It is too early yet to plant cauliflowers of course, but you will have plenty of time to order your seeds. Cauliflowers are best sown in seedling trays and transplanted when 10 cm (4 in) high.

Celery

New Gippsland Seed Farm offers a Giant Red Celery which has deep red stems. It is best eaten when blanched and is a colourful addition to any salad or pie. Seeds can be sown from now until Christmas in well manured soil.

Burdock

Another unusual vegie that attracted our attention is Burdock which is a Japanese vegetable with edible roots similar to parsnips. Burdock seeds are available from the New Gippsland Seed Farm.

Celpar

Celpar is a combination of celery and parsley and is a wonderful advance for gourmet cooks. It is very easy to grow and reaches a height of about 30-60 cm (12-24 in). This unusual vegetable is available from Thompson and Morgan and looks like parsley but tastes like celery. The top is used in exactly the same way as parsley, and the round slim stems can be used just like celery.

Parsnip

This underrated vegetable has not been neglected by Thompson and Morgan who have managed to develop the world's first hybrid parsnip called Gladiator. This vegetable is disease resistant and with a little imagination could become very useful in pies, stews, vegetarian pasta dishes and as a side vegetable.

Baby Vegetables

These are becoming increasingly popular as their delicate flavours make them an ideal accompaniment to any meal. Baby vegies are grown from ordinary seeds and harvested when very young. It must be remembered that they need plenty of water, sunlight and composting, and fruit should not be left to mature on the vines or plants as this will check growth. All suppliers have suitable varieties.

Tomatillo

Kings Seeds offer this Mexican vegetable which is related to the cape gooseberry. The fruit is yellowy green, and can be



eaten raw with tomatoes, or used in 'salsa verde', the Mexican sauce served with tacos.

If your preference is for the older varieties of vegies rather than the newly developed hybrids, there is another source of supply available. The Seedsavers Network is a preservation project that is saving and growing traditional, non-hybrid seeds. They are interested in useful plants, and they have a wide variety of vegie and fruit tree seeds available for all areas and climatic conditions.

Happy gardening to all you gourmet cooks and green fingered gardeners.

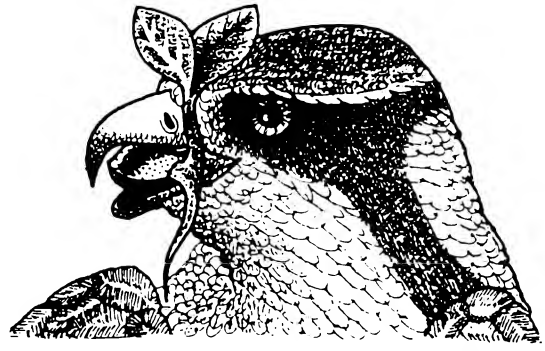
Suppliers

New Gippsland Seed Farm, Queens Rd, Silvan 3795. Ph: 03-737-9560.
Phoenix Seeds, PO Box 9, Stanley 7331. Ph: 004-581-105.
Kings Seeds, PO Box 14, Glenbrook 2773.
Thompson and Morgan, PO Box 50, Jannali 2226. Ph: 02-533-3693.
Diggers Mail Order, 105 Latrobe Pde, Dromana 3936. Ph: 059-871-877.
Seed Savers Network, PO Box 24, Nimbin 2480 (SAE please).

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Make Ahead Ideas For Gift Giving

by Julia Walker, Gladstone, Qld.

Spring in our part of the world heralds a rush of birthdays and local fetes, and being a family person my hand seems to be continually in my purse. Don't get me wrong, I don't begrudge spending it on such worthy causes but it's what I get for my money that causes the grumbling — tritely worded cards and mass produced objects that are more often than not over priced and poorly constructed. What to do about it? Make your own! I'm not crafty but I do have a garden and I can cook reasonably well so I think that with a little determination and ingenuity anyone can make wonderful presents that bring pleasure to all. I've compiled a few of my favourites plus two of my husband's — and with Christmas just months away there is still time for you to perfect these and add a few more of your own.

The problem with Christmas gift giving is that you need to find something to suit many different ages and tastes. If you're operating on a limited budget, this means having to make use of whatever materials and ingredients are available around your home. With a little careful thought, you should be able to create attractive and useful gifts for the whole family — without buying anything!

GIFTS FROM THE KITCHEN GARDEN

Bouquet Garni

Gift packages of bouquet garni can be easily put together by gardening enthusiasts for friends with neither the time or space for herb growing. Bouquet garni made from fresh sprigs of herbs is unequalled in taste and aroma but sachets filled with home grown and home dried herbs must come a close second. Eight or nine sachets presented in an attractive storage jar with instructions for use makes a practical and much appreciated gift.

You will need:

- 10 cm (4 in) squares of muslin/fine cheesecloth for each sachet
- cotton thread for tieing

For the bouquet garni:

- 1 tsp each thyme, parsley, marjoram and savory (optional)
- ½ tsp oregano and rosemary
- selection bay leaves
- packet black peppercorns

Mix together all but the latter two ingredients. Place a teaspoonful of this herb mixture in the middle of a muslin square, add one crushed bay leaf and five peppercorns. Tie bag securely, leaving a little bow of thread to facilitate removal from the cooking pot. This combination's ideal with stews and meat casseroles that require long slow cooking. Remove sachet prior to serving.

Variations include a mixture of similar proportions using thyme, tarragon, parsley, chervil, dried onions, a little sage and black peppercorns for poultry and rabbit dishes, or a mix of parsley, basil, tarragon, a small bay leaf and several cloves for tomato dishes.

Pineapple and Grapefruit Marmalade

- 1 medium pineapple
- 1 large grapefruit
- 1 lemon
- sugar

Peel pineapple carefully, removing all the eyes, then shred with a sharp knife. Quarter and slice the grapefruit as thinly as possible and halve the lemon and slice thinly as well. Weigh the fruit and add an equal amount of cold water. Let stand for about 10 hours in a cool place. Place on the stove, bring to the boil and gently simmer until the grapefruit rind is tender. Test for tenderness by removing a piece of grapefruit, cooling, and biting into it. Allow this mixture to stand a further 10 hours (somewhere between 8-12 hours if you are busy). Weigh again and add an equal amount of sugar. Simmer gently until the marmalade starts to gel, stirring frequently to prevent the bottom catching. Pour into sterilised jars and seal immediately.

Homemade Seasoning

- ½ cup toasted sesame seeds
- 2 tbsp poppy seeds
- 2 tbsp celery seed (optional)
- 1 tbsp dried diced chives
- 2 tbsp dried diced parsley
- 2 tsp paprika
- ½ tsp coarsely grated black pepper
- ½ tsp garlic powder (optional)
- 2 cups finely grated Parmesan cheese — it is best to buy a block and grate it yourself

Mix all the ingredients together then place in a jar or container suitable for gift giving. Enclose instructions. To use: add to lemon juice, cider vinegar or oil and vinegar for salads, sprinkle over cooked pasta, steamed vegetables or baked potatoes.

Herbal Mix for Salad Dressing

This herbal mix can be made up and stored in recycled airtight bottles then put away until you need a simple gift in a hurry. A little coloured cellophane wrapping, a flash bow and your gift is sure to please.

You will need:

- 3 tbsp dried parsley
- 3 tbsp dried chives
- 2 tbsp dill seed
- 2 tbsp dried tarragon
- 1 tbsp dried rosemary
- 1 tbsp dry mustard
- ½ tsp grated black pepper

Mix ingredients together and store in an airtight bottle. Directions: add 1 tbsp of herb mix to 6-8 tbsp salad oil and 2 tbsp vinegar. Stand unrefrigerated for several hours before using.



TOYS FOR LITTLIES

Pull-along Duck

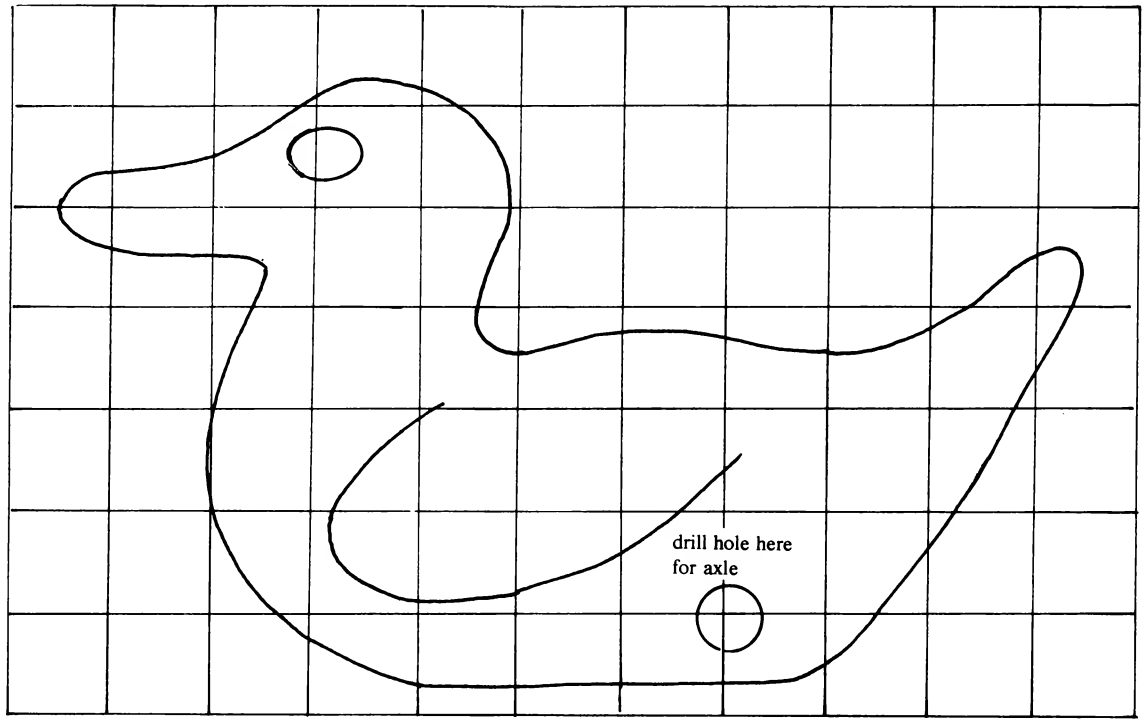
There are few things as satisfying as watching children's faces when they receive a present that has been lovingly made for them. This toy will delight all toddlers and is very simple to make.

Equipment

2 cm (¾ in) thick pine — 15 x 8 cm (5 x 3 in)
sandpaper
paint (for eyes and wings)
varnish
8 mm ($^5/_{16}$ in) dowel cut to 57 mm (2¼ in) length
25 mm (1 in) dowel — 2 x 8 mm ($^5/_{16}$ in) lengths (wheels)
screw 'eye'
string

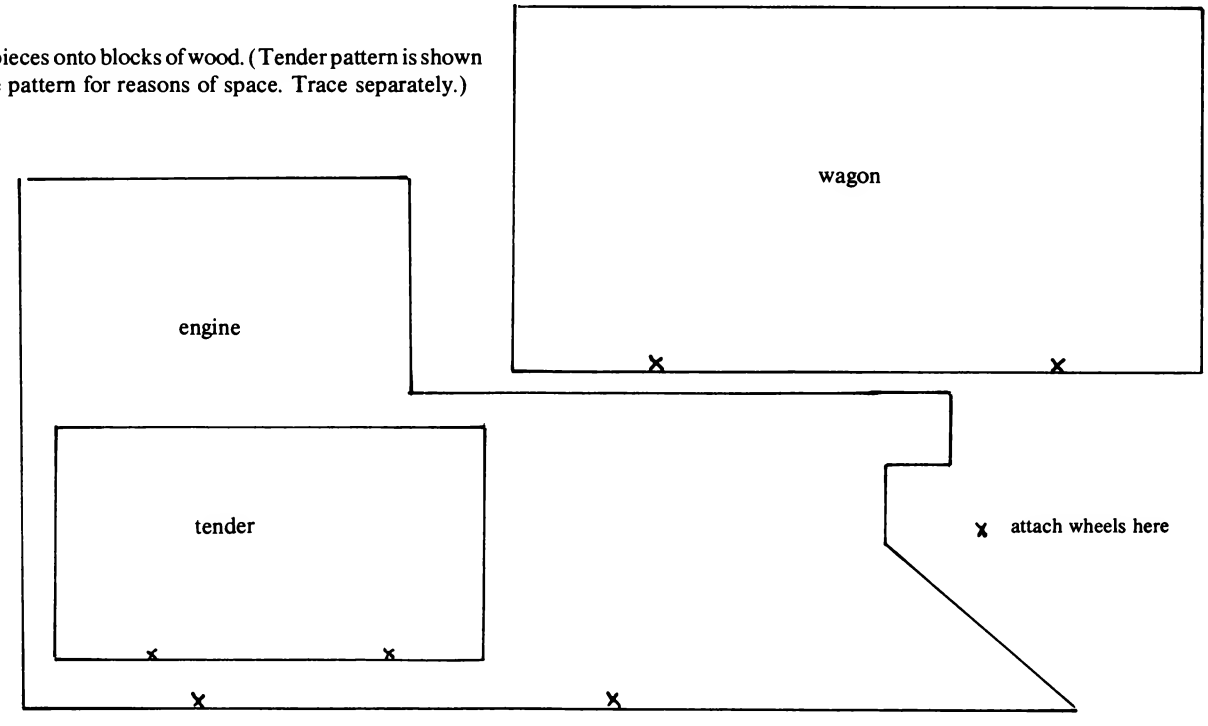
Method

Trace the pattern for the duck from the grid. Cut the wood to the pattern, then drill 9 mm (⅜ in) hole through the body as shown and the centre of both wheels. Sand all the pieces until smooth. Paint the eyes and wings on, and when completely dry varnish the wood. Glue one wheel onto the dowel ensuring that the ends are flush. Slip the dowel through the body of the duck and glue on the other wheel. Check that the wheels can move freely. Varnish the wheels and any of the axle that is exposed. Screw the eye into the front of the duck, tie on a strong piece of string and your special gift is complete.



Train

Draw 2 pattern pieces onto blocks of wood. (Tender pattern is shown on top of engine pattern for reasons of space. Trace separately.)



Train

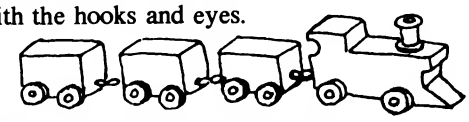
The steam train is slightly more complicated than the pull-along duck, but it should not be too difficult for any enthusiastic wood worker to make from scrap timber.

Equipment

offcuts of timber, 100 x 50 mm (4 x 2 in) or similar
sandpaper
paint
nails with strong washers
3 curtain hooks and 3 eyes
25 mm (1 in) dowel cut into 16 x 8 mm ($^5/_{16}$ in) pieces for wheels and 1 x 25 mm (1 in) piece for smokestack

Method

Trace the pattern from the grid and carefully cut the pieces out from the blocks of wood. Sand the pieces until smooth then paint them with bright colours. Nail the 25 mm (1 in) dowel onto the front of the engine — this is the smokestack. Attach 4 of the wheels onto the engine where marked with nails and washers, ensuring that the wheels can move freely. You may need to drill a small hole through the wheels before nailing them to the train pieces. Attach the wheels to the tender and two wagons where shown, then hitch the pieces together with the hooks and eyes.



HERBS FOR THE HARD-TO-PLEASE

Herbs for Him

It's hard to find herbal gifts for men that are not flowery and overperfumed but this recipe imparts to drawers a fresh outdoor scent that is guaranteed to cheer up even the most disreputable sock collection. All ingredients must be dried first, including the lemon peel.

You will need:

1 cup lemon verbena leaves *or* eau de cologne mint
½ cup pine wood shavings
½ cup African marigold petals
2 tbsp lemon peel
2 tbsp rock salt
2 tbsp ground ginger (optional)

Break lemon peel up into small pieces. Tear wood shavings into small pieces also. Mix all ingredients together and store in a covered container for 10 days. Make up one or two square sachets from fine, closely woven cotton, ladle in herbal mix, sew end firmly. If you don't sew, cut out several 15 cm (6 in) squares of material, trim edges with pinking shears and tie together with braid or a ribbon.

Teenagers are often difficult to make presents for as the group pressure they are under demands that they reject the homemade in favour of all that's glossy and new. One present that has always been enthusiastically received is my cello-phane packet of herbal bath bags, little cheesecloth bags each tied with a pretty ribbon. These can be used for facial problems or to soothe sun or wind burnt skin, both common in the teenage years.

Oatmeal Bath Bags

1 cup oatmeal
2 tbsp chamomile flowers
2 tbsp wheat germ
1 tbsp milk powder
1 tsp dried rosemary/peppermint

Mix all ingredients together. Cut out a number of 10 cm (4 in) squares of cheesecloth, place a large tablespoon of the mixture in the centre, then tie up with a piece of ribbon. Trim off the straggly top of the cheesecloth. If you leave long ends of ribbon they can be looped over the tap so the bag is suspended in the bath water.

Gift wrap the bags in coloured cellophane.

Of course there have been many articles in past issues that featured simple crafts so if you are stuck for further innovative ideas blow the dust off your back copies and see what treasures they hold. As well, there is an article on page 57 of this issue describing ways of using cross stitch for gift giving. Happy handcrafting.

FARM HINTS

by Jill Redwood, Goongerah, Vic.

PATCHING A SMALL HOLE IN A TANK

Cut 2 leather washers to cover the hole, then secure them both sides of the hole with 2 metal washers and a nut and bolt. The water will swell the leather and make a good seal.

LEATHER DRESSING

An effective leather dressing can be made from 50 g (1¾ oz) of soft soap dissolved in 150 ml (5 fl oz) of warm water in a jar. Add 50 g (1¾ oz) of finely chopped mutton suet (from kidneys is best), 150 g (5 oz) of shredded beeswax and 50 g (1¾ oz) of sugar. Put in a jar and into a pan of water. Heat to simmer. When all is melted, leave it to cool and add 150 ml (5 fl oz) of turps.

HOMEMADE PUTTY

Mix equal parts linseed oil and whiting into a dough. Knead until it's smooth. If it's too oily, lay it on a wad of newspaper.

PRESERVING EGGS

Line a box with newspaper and put a layer of bran on the bottom (stock food bran, not health food store bran). Select fresh laid clean eggs and smear them with vaseline. Place in the bran so they are not touching and sprinkle more bran around them. Add layers of bran and eggs until the box is full, then cover the inside of the lid with newspaper, secure it and store in a cool, dark place. They keep about 6 months.

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BAMBOO

A Useful Plant

by Jose Robinson, Wild Cattle Island, Qld.

Bamboo is a remarkable plant — probably one of the most extraordinary on earth. Actually it is a member of the grass family. There are over a thousand kinds of bamboo in the world. Some grow to a height of over 20 m (66 ft), with a diameter of up to 180 mm (7 in).

IN THE GARDEN

Bamboo is not a plant for a small garden. Even in a large area it must be kept under control. The rhizome or rootstock must not be allowed to go unchecked. It spreads by means of long fast-growing underground shoots from which germinate new sprouts. If you do have the space to accommodate bamboo in your garden, the thousands of uses it can be put to will more than compensate for the extra room required.

The rustle of bamboo foliage in even the slightest breath of breeze is indeed a pleasant sight and sound. After rain the leaves create an illusion of endless flashing mirrors, as they seem to be forever moving and whispering.

Bamboo grows extremely fast under suitable conditions. People have laid claim to have actually watched it grow!

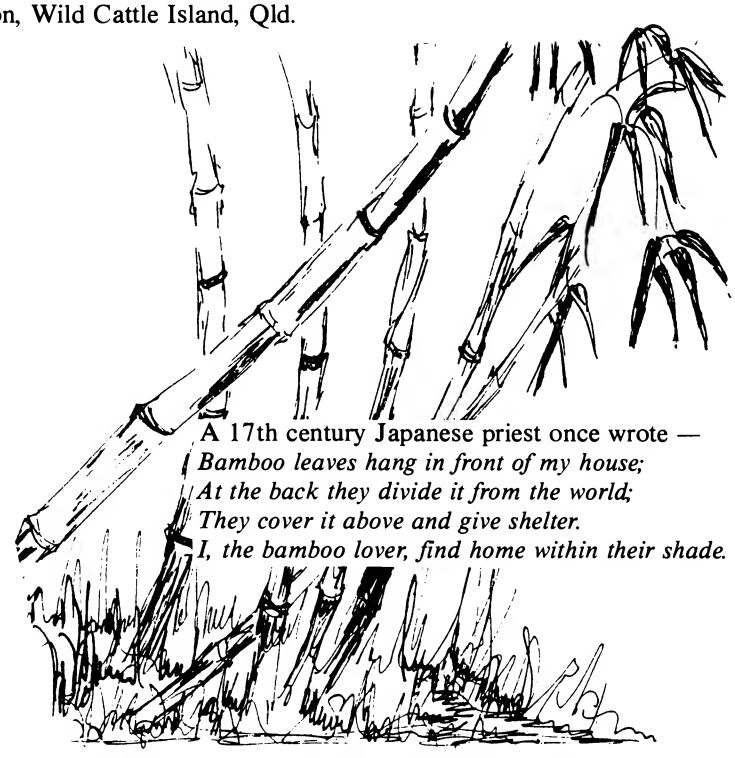
To date, I've not been able to get the big bamboo to grow here in the sandy soil of our home island. However I have managed to grow several healthy stands of the smaller variety. The canes have grown to about 4 m (13 ft) high and the diameter is about 35 mm (3½ in). Hardly a day goes by that I am not using some part of the bamboo for some useful purpose.

USES OF BAMBOO

Many hundreds of different articles can be made from this unique plant. It can be used as a building material, or for making furniture and fencing. Floor mats and baskets can be woven from split bamboo. Lawn rakes and handles for other garden tools are a common use. Everyday objects such as cups, ladles, buckets, vases, paint brushes and planters can all be fashioned from the ubiquitous bamboo. Blinds, bows and arrows, fans, flutes, curtain rods, fishing rods, pipes for irrigation, brooms, paper, fish traps, umbrellas, combs and tobacco pipes — the list is endless. It is said wine kept in green bamboo for a few days improves greatly in flavour. Edison used bamboo as the filament for his first electric lamps.

Food

Only the young tender shoots of bamboo are suitable for food, though if too young they tend to be very soft. If left too long they become coarse and tough. So somewhere in between there is a perfect time to harvest the shoots for food. When the shoot appears through the soil it should be gathered and stripped of its outer covering. The shoots are then boiled in salted water to remove the natural bitterness. In the East, bamboo shoots are canned for export all over the world. They are processed by boiling first, then dried and pounded flat or sliced. The texture of bamboo shoots is rather like apple in appearance, but more like an artichoke heart in flavour. The food value is akin to that of the onion.

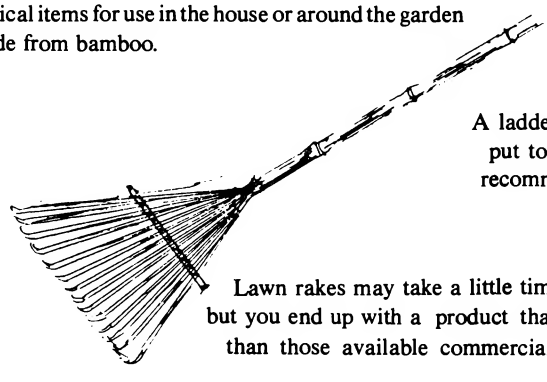


A 17th century Japanese priest once wrote —
Bamboo leaves hang in front of my house;
At the back they divide it from the world;
They cover it above and give shelter.
I, the bamboo lover, find home within their shade.

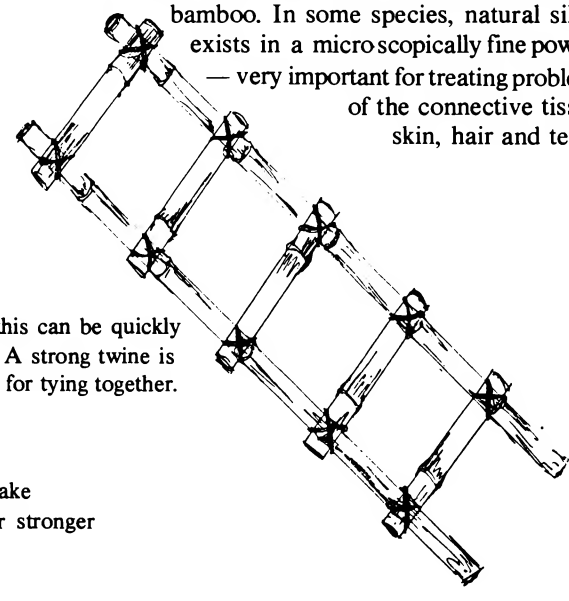
Medicine

In oriental medicine there are many remedies based on bamboo. In some species, natural silica exists in a microscopically fine powder — very important for treating problems of the connective tissue, skin, hair and teeth.

Many practical items for use in the house or around the garden can be made from bamboo.



Lawn rakes may take a little time to make but you end up with a product that is far stronger than those available commercially.



A ladder like this can be quickly put together. A strong twine is recommended for tying together.

In the East

One naturally thinks of the orient when relating to bamboo. It is considered there to be a noble plant and much ceremony and custom pertains to the bamboo. In early China, books were hand scribed on strips of bamboo lined with silk and there is a long tradition of bamboo craft. It is said the interlocked roots of a bamboo grove support the frail dwellings of country villages during earthquakes. Bamboo is cultivated in the East for commercial forests and bamboo scaffolding is commonly used on building projects. It is lashed at the intersections and joints with rattan, which is tied on wet and shrinks to a very tight grip. I clearly remember my first incredulous sighting, in Singapore some years ago, of bamboo scaffolding used at building sites of multi-storey city constructions. From a distance I thought it fragile. How wrong I was.

Even in today's plastic world, bamboo still shines through for its lasting strength. Many junks have masts made from durable bamboo. Bamboo chopsticks take precedence over modern-day plastic ones. In fact bamboo is inextricably woven into the fabric of Eastern culture. Even the ritual tea ceremony would hardly be possible without bamboo.

Garden Stakes

A handy supply of strong durable garden stakes for tomatoes or climbers is always at the ready from my bamboo stands. The young skinny off-shoot canes of about 5 mm ($^3/_{16}$ in) diameter make excellent name-tag pegs for my seedling pots in the greenhouse. For the name tag I cut up squares of waxy milk cartons and use marking pen to print plant names on the plain side. Sixteen tags may be cut from one milk carton. Two holes are punched in each tag then the bamboo is pushed up through these.

CRAFTING WITH BAMBOO

A knife and a saw, simple basic tools, are usually all that are required to fashion bamboo into useful objects. As a material, its lightness, rigidity or sometimes flexibility are unsurpassed. It is cheap and abundant. It splits lengthwise. Heated it can be bent to retain a shape. This fantastically natural medium will stand years of punishment. I own a New Guinea made bamboo long-tooth hair comb, which I've had for 30 years. I'm still using it and it hasn't lost a single tooth. It's marvellously gentle on knotted hair.

Many objects made from bamboo need hardly any refinement, giving the impression that they have almost evolved from nature rather than being formed by human hands.

Lashing

The oriental idea is to lash bamboo together when crafting, rather than using nails or other metal fastenings. This can be very effective, as the lashing itself then forms part of the pattern. A pretty plant holder can be made by lashing together with twine a flat row of narrow bamboo of about 300 mm (1 ft) length. Then join in the round to the required size. One row of lashing needs to be about 5 cm (2 in) from the top and a second row of lashing about the same distance from the bottom. Cut a plywood base to size with a few holes drilled around the perimeter. This can then be laced with twine to the bamboo. Raffia, twine, string or anything similar is suitable for the lashing.

Toggles

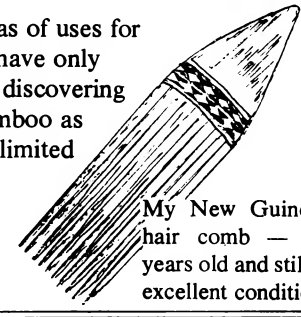
A further use for small bamboo pieces is toggle buttons. These require cutting to size (with hacksaw) and sanding rough edges. Next drill two small holes right through rounds, to enable them to be sewn to a garment. I find these toggles of all sizes make great fasteners for my woven grass baskets.

Mounting Rods

I suppose I would have used hundreds of lengths of bamboo over the years, for the top and bottom mounting rods of large wall hangings. I usually cut about two dozen green mature canes at a time. Then I strip the outer sheath away, and bind them together with rope to keep them straight while they cure. After a month or so, I cut them to size and sand the notches and ends. They require no varnishing or further finishing. The fabric is then stapled onto the rods.

Occasionally I may hold canes over the fire to make those burnished marks as in mottled cane. Even the short off-cuts are useful. These I make into beads for macrame work. I usually cut beads of anything from 10 mm (½ in) to 200 mm (8 in) long, depending on what I am working on at the time. With patience and care, bamboo may be carved if desired.

There are endless more ideas of uses for this fantastic plant. Here I have only scratched the surface. I am discovering more and more uses for bamboo as time goes by. The uses are limited only by the imagination — and motivation.



My New Guinean hair comb — 30 years old and still in excellent condition.

THE BAMBOO NETWORK

The Bamboo Network is an informally organised international information and plant exchange. It is not a formal society and is locally funded by subscriptions to newsletters. The Bamboo Network aims to put bamboo enthusiasts at all levels of knowledge and experience in touch with one another and other bamboo organisations world wide; to share plant material and information within the network and with botanic gardens; to consolidate what bamboos are in Australia and import other desirable species; to promote, share and diversify uses of bamboo in the human and natural environments; to promote and research bamboo generally. Subscription rates: Australia — $10 per year, back issues $3.50 each, seed exchange $10 per year.

The Bamboo Network (Aust) Newsletter is available from Hans Erken, Glen Esk Rd, Rollands Plains 2441.

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A HOME ON WHEELS

by John Archer, Brunswick Heads, NSW.

Those of us who have lived in cities serviced by double decker buses have probably spent some time wondering what it would be like to live in one and travel as a free spirit — a bus commuter's daydream. Living in a bus or van imposes its own limitations, mainly those of space, which affect the lifestyle of the occupants. As Jane Lidz says in her book *Rolling Homes*:

> The 'housetruckers' have gained a special self-confidence and pride by having done it themselves. Each rolling home is a personal solution to a difficult problem: how to design a home in a rectangular space no larger than 8 ft wide, 40 ft long and 13½ ft high. The largest housetrucks are comparable in size to a large living room (about 300 sq ft); the smallest are comparable to a pantry (36 sq ft). Saving space is the basis for two unwritten laws of living in a housetruck:
>
> *If it isn't useful, you don't need it.*
>
> *If it doesn't fit in the truck, you can't have it.*

Beris Hansberry and Jurgen Nicklish found that it wasn't quite what they expected, but fun nevertheless. They decided to buy a bus because they liked the idea of living a gypsy life for a while. Jurgen explained how things worked out. 'I had already rebuilt a bus as a mobile home in Melbourne and created a few other accommodations on wheels before that as well. While in Asia I met quite a lot of people travelling in adapted trucks and vans. In Melbourne I bought a 1938 White truck which had a complete timber body and converted that to a good living area.

Then Beris and I started thinking about a double decker bus and what a challenge it would be to convert one. Friends in Wollongong gave us an address and on one of our trips to Queensland we had a look at the bus yard. There were about twenty to choose from, so it was quite exciting.

However we made two small mistakes. First, we didn't know anything about diesel engines. We thought that the one we chose sounded fine — but we were wrong. The other mistake was that we bought the particular bus we did because it was in the best condition as far as the body was concerned. There were several buses that people had started to do up but had given up and sold them back to the yard. One in particular I remember had all the innards ripped out except for the floors and it was only $1800. We paid $3000 for ours because it was in original condition with all the seats and fittings. But of course we ended up ripping all that out and taking it to the tip anyway. The only other thing different about ours was that it had a folding door on the back platform — all the others were open at the back. It was a real advantage because it is an automatic door which I can operate from the driver's seat.

I had a German truck driver's licence at that time but not an Australian one. However I knew how to drive big vehicles so one of the mechanics gave me a twenty minute driving lesson — once around the block — and said, 'Well, off you go.' So off we went.

Unfortunately there are no easy ways to leave Wollongong. The chap at the yard had tried to explain how to take a few short cuts and how to avoid problem areas but we must have missed a turn somewhere and suddenly we found ourselves



Remodelling the bus was costly — they ended up selling the car, the fridge and the colour TV — but it enabled them to live comfortably and cheaply during their year on the road.

driving on a narrow winding mountain road which eventually led us to a bridge spanning an amazing gorge. There were mines in the vicinity and the road was full of loaded coal trucks travelling at astonishing speeds. It was rather nerve wracking but there was no room to turn anyway. The bridge was so narrow that only one vehicle could cross at a time. Finally it was our turn but then as we set off, I realised that it was a suspension bridge with a frame structure and I had no idea whether the bus would fit under it. We began to wonder what would happen if the bus got stuck on a one way bridge over a gorge in the middle of nowhere with the traffic starting to bank up at both ends — and me without a licence.

Anyway we were lucky — the bus fitted, just. Over the bridge the road turned a hairpin bend and then went up pretty steeply. Because we were so big all the traffic stopped at the top of the hill to let us through. We were going so slowly most people had left their cars and gone to the edge to watch our upward progress. When we finally made it to the top everyone clapped and cheered. It was very dramatic.

It took us three or four days to get from Wollongong to Adelaide. We had a permit but this was only valid in NSW and once we were in South Australia we suddenly realised our position — no registration, no insurance, no licence, no number plates even. However no one bothered us and we made it home without trouble.

Once we reached Adelaide we spent six months working on the bus, starting with the interior. We sat down for a week and drew up plans of the layout, then I calculated how much timber we'd need. When I'd done that we took the trailer down to the hardware and bought everything we needed — eventually we ended up making three more trips carrying the same amount each time, so our calculations were somewhat awry!

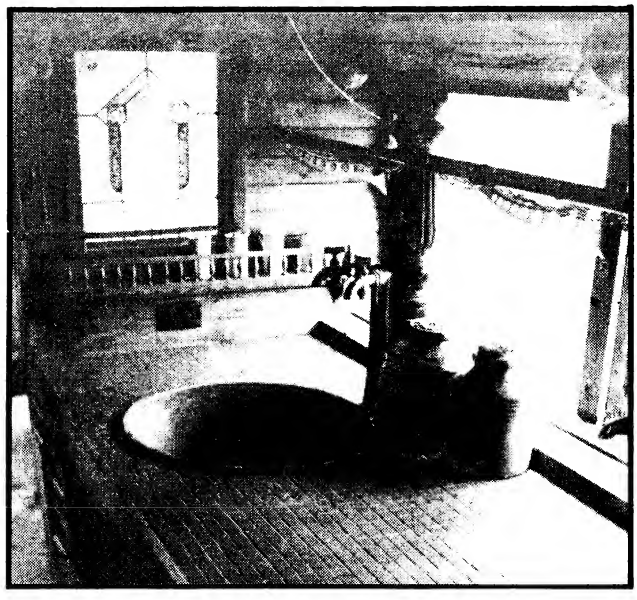
We began by timbering the existing floor, then I lined around the bed with timber and started building wardrobes — it all seemed to swallow more and more timber. We even timbered the kitchen ceiling because it looked nice. We used 12.5 mm (½ in) tongue and grooved V jointed pine lining and, all up, the timber cost $1200. I wouldn't use it again because I think it's too expensive. The complete remodelling cost about

$4000, of which $400 went for self tapping screws. We didn't notice the cost for a while because it was spent over a period of weeks — a couple of hundred here and a couple there. When we added it all up we were shocked to see how much it had cost.' To pay for all this, they ended up selling the car, the fridge, the colour TV — everything went into the bus.

Registration, according to Beris, wasn't a problem. 'We registered it as a campervan and it cost $120 for six months. Apparently a vehicle is classified as a bus by the amount of permanent seating in it. If it has more than eight seats, it's a bus.'

Finally they were ready. They packed everything carefully, organised the children and set off for Perth — but didn't make it. The bus broke down at a place called Kimber, 80 miles west of Iron Knob — a little wheat town with not much else, described by Jurgen as 'a sort of rural Siberia'. There had been problems with overheating for a little while and finally the motor just gave up. It was all a big shock to the travellers, as they'd taken the health of the motor for granted and put their cash and energy into doing up the inside. This was a costly oversight, because as they dismantled the engine, it turned out that everything needed to be replaced. There they were, camped in the yard of the little engineering shop which was helping fix the motor, surrounded by high grass and dead car bodies. It was the middle of summer and, as if that wasn't enough, Kimber was in the middle of a mouse plague, so there was plenty to think about.

Eventually it got to the stage of having to pull the whole motor out to work on it. The first attempt to lift the 1½ ton engine with a hired forklift succeeded only in bending the prongs on the fork lift and making the driver pretty unhappy. Finally they used a crane to do it. The reconditioning of the motor cost about $4000 and it went on for months. Even doing most of the work themselves, Jurgen and Beris still had to mortgage the house to pay for it. Eventually they were back on the road again. The whole trip took a year. 'When we left Kimber,' continued Jurgen, 'we went to the coast and travelled down to Port Lincoln where I found a job in the *Gallipoli* movie. Part of the job was having all my hair shaved so we must have looked a bit eccentric to some of the outback folks as we travelled to Perth.



The very compact kitchen, with stained glass window, copper sink and food storage racks that came from an old steam train.



Jurgen in the doorway of their mobile home.

One of the first things people ask is 'how many miles do you get to the gallon?' and the answer's about twelve. But we found that we used less fuel than the average family car because once you stop with a bus you tend to stay put. You think twice before driving it down to the shop. We carried pushbikes and rode them whenever we stayed anywhere.

The whole design of this conversion worked really well. We decided not to have a shower or toilet because if you are out in the scrub, you can wash in the open and if you are staying in a friend's yard or a caravan park, then you use their amenities. We carry a 200 lt (50 gal) tank of water that feeds the sink and also has a tap on the outside of the bus. We also avoided fancy electrical gadgets. The bus has a 24 volt electrical system. A set of batteries lasts for a week without being charged and this will power the lights, stereo and TV. We carried two sets of batteries and if we decided to stay somewhere in the bush for a while, I would disconnect the second set so that we always had a fully charged set to start the motor with. The stove and refrigerator run on gas and the fridge is wired for 240 volts as well. In all the bus is 9.14 m (30 ft) long by 2.43 m (8 ft) wide. On the lower level there is a kitchen, dining and living area and upstairs there's a master bedroom and a second bedroom for the children.'

Looking back on the trip, Beris' memories are very positive. 'It was good for the kids. They learned how to socialise, how to approach strange children and make friends. Because they had a limited amount of toys, they learned to improvise. They tended to spend much more of their time outside and to use the environment as a play space rather than depending on manufactured toys. On the whole it's been a really worthwhile experience.'

Growing Stone Fruit Organically

by Hal Pickering, Mulgoa, NSW.

By having a variety of fruit trees, in short rows separating three different vegetable plots, I have been able to create a garden with diversity which is an important part of organic growing.

Each vegetable plot is used at different times of the year so

- one is resting — allowing all the weeds to grow and hence revitalise the soil;
- one is being used — growing vegetables, being fed with compost and mulch and, of course, feeding the family;
- one is being prepared — the weeds turned in and a dressing of dolomite (if needed) and compost added, finally chipped over with a hoe to prepare the plot for the next lot of vegetables, or you can use the no dig method of Esther Deans.

Living in an area which is ideal for growing stone fruits, I found that the trees in my vegetable garden have thrived with very few pest or disease problems. I have produced fruit from these trees which would be A1 quality at city markets.

This success in the home garden prompted me to get some experience in a local stone fruit orchard where I could learn about packaging and presenting fruit for market, the pest and disease problems I could encounter as a commercial grower and the running costs involved — cost of packaging, implements, plant and equipment, irrigation. After one season's experience (not really enough) from pruning to marketing at a local non-organic orchard I was able to combine the good points of conventional orcharding and organic growing.

PLANTING THE ORCHARD

I prepared the ground for the trees during the early spring. The ground was ploughed only shallowly, enough to turn the grass and weeds under. A dressing of dolomite was added at this stage. After a couple of months I gave it a run over with disc harrows and then finally with a chisel plough.

Next was the selection of varieties. The trees must be ordered from a nursery or wholesale propagator before Christmas to allow for budding. I chose varieties of peach, nectarine and plum which would have fruit maturing before Christmas — ideal for this area. The other advantages are that it is possible to miss a lot of pest and disease problems and, having a young family, I have the school holidays free.

The number of each variety was also important. Too many of one variety would mean hiring of labour and a frantic two or three weeks trying to get ripe fruit off the trees and into market. Fifty of each variety is ideal for a husband and wife team although 75 of each can be handled with a lot of hard work. The last important item for selection of varieties was to ensure that the plums had suitable pollinators.

Diversity is important in setting out the orchard. I decided to plant plums with peaches and nectarines with plums in rows. Although this is not an ideal system because I am mixing stone fruits with stone fruits, it still creates some diversity because there are different coloured flowers and foliage and also flowering times vary. An ideal system would be a row of peaches, then citrus, grape, persimmon, and so on. The big problem with this *ideal* system is that you will be working on at least one type each and every month of the year, with no off season to relax. It would also need a large variety of packaging for the different fruits.

At planting time it is important to be ruthless when cutting the young trees back if you want that chalice type shape so commonly used in most commercial orchards. You must cut the tree back to about twenty inches. It is also important with stone fruits to buy bare rooted stock as trees which are in pots are sometimes old stock and are usually poor growers.

MANAGEMENT

The next decision to make was between conventional continuous cultivation between the trees or growing grasses, clovers and



Hal with a keen helper in part of his extensive garden.



Part of the new orchard, showing developing grass cover and inter-row cultivation.

green manure crops. I made a compromise between the two because I knew it was important to cultivate around young trees so that they don't have to compete with weeds. However it was also important to use grasses, clovers etc. to create the diversity needed to harbour predatory insects and funguses and generally balance the ecosystem as I do in the vegetable garden. To obtain this compromise I am cultivating a strip approximately 1 m (3 ft) wide right against the rows of trees, leaving a strip of grass approximately 17-20 cm (8-10 in) wide along the rows and the same width of green manure crops down the rest of the area in the middle. The area of grass along the rows of trees will grow herbs, clovers, grasses and also carry the irrigation drip line for watering the trees. This grass will need to be cut from time to time and the area around the trunk of the tree chipped by hand until the trees are about five years old.

Using green manure crops for fertilising is not enough for growth and production of fruit every year so other fertilisers must also be used. Liquid seaweed (SM3) is used at budswell and when the fruit is half formed. Also I will be using chicken manure from battery hen cages which will be composted to get rid of that strong ammonia which kills off the micro-flora of the soil. I prefer the manure from battery hens to the grower manure (with the sawdust) which is frequently sprayed for lice and mites. If obtainable, I also use goat, horse, cow manures and mushroom compost instead of using chicken manure continuously, but these must be composted first.

PESTS AND DISEASES

Because the orchard is still in its infancy there have been few problems although long term I may face some of the pests and diseases encountered in commercial situations. Some trees in the vegie garden developed peach leaf curl and an outbreak of aphids occurred when I planted the first part of the orchard. I believe the latter occurred because there were no grasses established in the orchard and therefore no predatory insects to balance the aphids.

Fruit fly is a major problem with stone fruit and I'll be doing everything I can to beat them. Early fruiting varieties elude many pests, including fruit fly, but care must be taken in years when spring is wet as fruit fly then can be found before Christmas. There are a number of approaches to controlling them but I believe for natural methods to work fruit must be grown in good organic soil.

To control fruit fly you will need two traps, one each for the male and female. Female fruit fly sting maturing and ripe fruit, laying eggs just below the skin. These eggs hatch after being fertilised and work their way into the fruit, rotting it so it falls to the ground where the maggots burrow into the soil and complete their cycle, turning into adult flies. This cycle can occur within a season or flow over to the following one. The female fly eats decaying fruit, kitchen scraps and meat. The female trap can be made of a number of lures and poisons — orange pulp, vanilla essence, an old rotting peach or plum or the commercial lure protein hydrolosate. Any of these laced with a poison of your choice and placed in a jar or plastic container and hung in the trees will trap and kill the female.

Male fruit fly can be trapped in Dak-Pots which act as a lure but don't completely eliminate them. They are best placed on a fence or ornamental tree near the tree to be protected but remember to place them out of the reach of children and animals as they are poisonous. Your crop is safe if the Dak-Pots are empty. If there is evidence of fruit fly pick the crop immediately even if it is slightly green and ripen it inside. If too green place in trees traps made from vanilla essence, cloudy ammonia and water at a ratio of 1:2:100. Use a jar, plastic bottle or margarine container but remember the idea is to trap the insect, i.e. allow it easy access but a difficult exit. Remember too, that if it starts to rain the same procedure should be taken as if you found fruit fly in your Dak-Pot. Various lures may also be tried. The advantages of traps and Dak-Pots is that they do not come in contact with the fruit or you, whereas sprays like Lebacyd and Rogor are taken into the plant's sap stream and kill the fruit fly eggs from inside the fruit.

Ensure the areas beneath your trees are cleared of decaying fruit. Ducks can help with this clean up. Chickens tend to scratch too much. Unwanted fruit can also be fed to poultry or destroyed as recommended by the Department of Agriculture. Don't forget that healthy plants resist all pests and diseases.

The last problem to overcome is birds. In the vegetable garden they can be stopped with nets but this is not viable on a large scale. You must do everything possible to scare this pest away — tin cans, silver paper, plastic hawks, humming lines, toy cats and dogs. In a commercial situation LPG scare guns are successful but should only be used in a large rural area due to the noise factor. If a bird pecks at a piece of fruit on the tree, leave it. Sometimes it will be the only one attacked. If you remove it the birds will surely try another piece.

If you're prepared to put in the extra time to find natural solutions to these problems and to maintain your orchard organically, then it's certainly a worthwhile undertaking. The satisfaction of producing healthy, chemical-free fruit more than compensates for the effort involved.

Reprinted from the newsletter of the Organic Growers Association of NSW, September 1985, PO Box 2, Bringelly 2171.

Low Cost Entertainment for the Littlies

by Vicki Judd, Nunawading, Vic.

Almost three years ago now Christopher arrived on the scene, and having overcome the problem of setting up a nursery on a limited income (*Bringing Up Baby Cheaply*, GR 65, p. 29), I was left to wonder how to keep him entertained, and what sort of toys to go for. By the time Bryan arrived 8 months ago we had quite a list of places to go and things to do which cost us little or nothing, so I will now pass this list on.

I picked up a lot of books and toys at the many opportunity shops and second hand shops around my area, and garage sales and trash and treasure markets are great places to pick up a bargain as well. I found a teddy for fifty cents, a big bag of wooden blocks for $1 and a doll made of plastic lids for $1, just to name a few. The local newsagent has been a source of inexpensive books, quite often having a bargain table with books costing one or two dollars. Boxes of 10 Little Golden Books can be picked up for $8.50 and these are great for pre-schoolers.

I decided that I should choose educational toys on the whole, as long as they were still fun, and during the year I try to put aside a little money for Christmas and birthday gifts. There are two or three companies who sell extremely good toys through the party plan if anyone is interested (addresses below). A rocking horse for Christopher (worth about $40 in the shops) was given to me free for holding a toy demonstration at home and I picked up some quite inexpensive and good quality toys at the same time. I even had 4-6 weeks to get the money together to pay.

Things like glue, play dough, finger paint and bubble liquid I make myself, mostly from things found in the home anyhow (recipes follow). Papier mache' is a great way of using up old newspapers and magazines for older kids, and can be used for piggy banks, bowls and so on. I can remember making a puppet's head when I was at school. Just tear up the paper and find a mould, then paste the bits of paper over it in layers. Smear the mould with soft soap first to prevent sticking. Balloons make good moulds for piggy banks or heads.

There are a number of sewing and knitting patterns for soft toys and dolls' clothes, especially for those Cabbage Patch type dolls, and many of these can be produced from scraps, so are free. A lot of wool shops have a bargain box which contains the last ball or couple of balls from a dyelot and of course the fabric stores have remnants which are sold cheaply if you have no scraps. Papers like the *Weekly Times* often have patterns for wooden toys you can make yourself and there are some good books around too.

Both of my boys love playing with boxes, bags, spoons, pots and pans, plastic bottles and containers. I find a bath full of plastic cups and storage containers will delight Christopher for ages, and even having empty shampoo bottles under the shower is fun, and free.

For outings, a packed lunch in the local park is top of the list. For those who grow their own fruits and vegies the lunch could be salad and fruit juice, and no cost is involved. Take a ball or frisbee along even if there is play equipment in the park so mum and dad can play too. A blow up beach ball costs a dollar or two, and the frisbee can be the lid from an ice cream bucket or similar container.



Christopher on a day out at the Collingwood Childrens Farm, an inner city farm amidst factories, high rise flats and a freeway.

We have a nearby lake surrounded by lots of trees, with a picnic area and a playground. There are ducks on the lake to eat all our stale bread (not that we have much of that) and lots of birds in the trees, especially bellbirds, and there's a lovely walk around the lake before or after a picnic lunch. There is no entry fee, so the only cost involved once again is lunch.

I take my boys to the zoo or to Healesville Sanctuary from time to time as a special treat, I only have to pay for my own train fare and entrance fee, which usually adds up to about $9 or $10, as the boys don't have to be paid for until they are 4 years old. I particularly love the Sanctuary, which is a beautiful natural bush area full of kangaroos, wallabies, koalas, all sorts of native birds and a reptile house. It really is lovely, and the air is always so clean and fresh.

The beach is another inexpensive day out, but if you go in the warm weather *please* invest in a sunscreen (SPF 15+) for yourself and the kids. I bought a bottle on special at the chemist for $2 but even at the regular price of $5.95 I would call it a bargain — beats sunburned skin any day. A ride on a bus or train to go window shopping is another low cost treat. I often go visiting friends by bus or train, and for less than $1 it's a real bargain day out!

We have also visited the Collingwood Childrens Farm and had a fabulous time. They've got organic fruit, vegies and herbs, solar green house, solar food dryer, goats, pigs, cows, sheep, ducks, geese, chooks including Silkies, rabbits, guinea pigs, horses, donkeys, turkeys and a cocky as well as a couple of dogs. I've never seen such rich black soil before! Entrance is by donation, and on a 'trust' basis — there is a money box out the front. It's hard to believe that the farm is surrounded by factories, high rise flats and a freeway!

Those have been our main outings and activities so far. I have plans to go to the fire brigade and maritime museums, and to ride Puffing Billy (the old steam train) as money becomes available. Most of these outings should cost no more

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than $10, which can be considered low cost nowadays, but I've kept some things to do in the future, as well as our trips to the park and walks together.

Both of our boys are loved and have not missed out on anything much. We may not be able to afford to go to the movies or to buy expensive toys, or to eat junk food every week, but we do go out together, and the kids have toys and books to play with, so what more do they need?

FUN FROM THE KITCHEN

Play Dough

1 cup SR flour
1 cup water
½ cup salt
2 tbsp cream of tartar
1 tbsp oil
food colouring

Cook all ingredients in a saucepan, stirring the mixture until it comes away from the sides. Cool. This lasts indefinitely when kept in an airtight container.

Bubble Liquid

Mix 150 ml (5 fl oz) warm water with 375 g (12 oz) soap flakes or shavings and add 125 ml (4 fl oz) glycerine. this gives stronger bubbles which can be held lightly in the hand.

Glue

2 heaped tsp powdered starch
2 heaped tsp cornflour
¼ tsp salt
water

Mix dry ingredients with a little cold water to form a paste. Add boiling water (according to thickness required) and stir till clear. This is a very effective glue.

Finger Paint

12 level tbsp cornflour
1 cup cold water
4 cups boiling water
2 tsp vegetable colouring
½ cup soap flakes

Blend the cornflour with the cold water to make a paste. Have the water boiling rapidly in a saucepan, and briskly stir in cornflour paste, keeping it free of lumps. Boil until clear and thick. Dissolve the vegetable colouring in a little water and add to the cornflour mixture. Stir in the soap flakes. When cool it is ready for use.

Christmas Snow

500 g (1 lb) salt
1 tsp plaster of paris
water

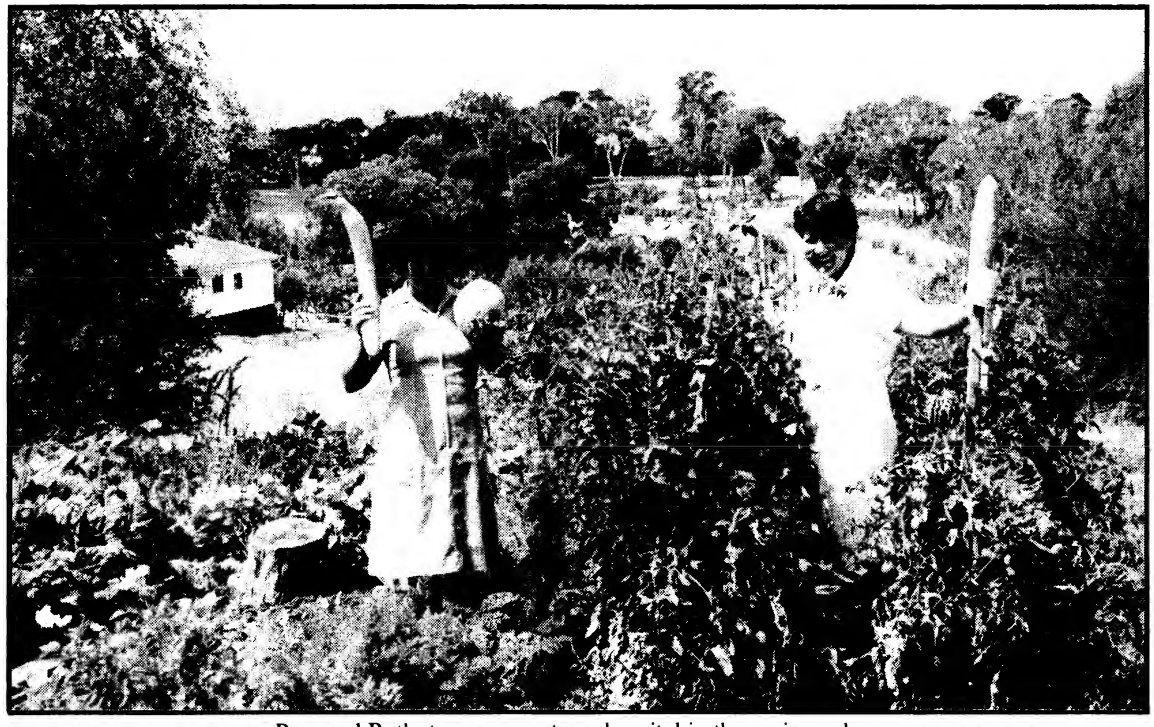
Mix the salt and plaster of paris to a thick paste with a little water and spread on tree. The salt crystals will sparkle when the lights are on.

Further Information

Learners World, 235 Bay Rd, Cheltenham 3192. Ph: 03-555-1366.
General Learning Aids, 14 Duffy Rd, Burwood 3125. Ph: 03-288-0088.
Leisurefun, 3/22 Clarice Rd, Box Hill 3128. Ph: 03-899-0305.
A useful book is *Toys to Make*, by Susan Esdaile & Angela Sanderson, published by Viking O'Neil and distributed by Penguin Books, RRP $12.95.

OUR HOSPITAL GARDEN

by Jill Whitford, Wooragee, Vic.



Pam and Ruth, two nurses at our hospital in the vegie garden.

I work at a small country hospital at Yackandandah, Victoria, where there are a number of longterm elderly patients. Physically they are unable to do much, so we try to think of activities to involve and stimulate them, and this is how the idea of a vegetable garden came about. There were other reasons for having it — to provide fresh, healthy homegrown vegetables for the patients and to save money for the hospital.

It seemed simple to me — to dig up a piece of unproductive ground and turn it into an attractive, productive garden, but there was opposition from various quarters and nothing happened the first year after the idea was born. The next spring I was determined to do something, so several staff members, including the Director of Nursing Lesley Mongan, approached the president of the hospital committee and got approval for the project.

At this time there was a patient in the hospital, a 79 year young farmer called Harry Schmidt, who became very interested in the project. He said he would help establish and maintain the garden and was even prepared to donate money to get a load of topsoil, but we decided that wasn't necessary. When Harry went away to another hospital for treatment, and returned after two weeks to convalesce with us, his first words on greeting me were, 'How are the plans for the vegie garden going?' and he produced from his pocket some pumpkin seeds which he intended to plant in the compost heap at the back. Harry went home after a while and is still not fully recovered, but sickness hasn't daunted his spirit nor stemmed his vitality.

The area we chose had overflow pipes from a septic system (no longer in use) running through it about 30 cm (12 in) below the surface. On top of the pipes was a layer of plastic sheeting, then about 5 cm (2 in) of screenings, so it wasn't ideal soil for a vegie patch. However, there was a huge old compost heap just waiting to be put to good use. Harry contacted the staff at the local Lands Department and they kindly came over with their machinery and ripped the area, bringing to the surface the pipes and plastic which went to the tip. Transferring the compost over was an afternoon's work for about ten people, including Chris, the doctor's wife, my husband Richard and his ute, and a number of kids. We used a rotary hoe to mix the whole lot up.



Harry at work in the garden with his homemade hoe.



Our vegie garden in full production during the summer months. Although it has lain dormant during the cold wet winter we're looking forward to planting our warm weather crops.

Then in came Harry with seeds and seedlings and the only implement he uses in the garden — a hoe he made from an old buggy spring and a bush pole. Everything just took off! The garden amazed us all with how it flourished over the summer producing a whole range of vegetables. The patients had a new interest, and although none are physically able to participate they take great delight in watching things grow. We take them down in wheelchairs and they are proud to come back to the kitchen with arms full of goodies. Excess produce is purchased by the staff willingly, and in one season we have made over $100 from this, not to mention money saved on the grocery bill.

Of course our garden is organic and virtually no pests have appeared. I believe pests are there to attack the weaklings and this garden is too healthy and unappetising to them. Even the rabbits in the paddock next door don't bother us. We have generated some interest from outsiders who donate a bit of time and sweat to our garden. We get donations of manure and have constructed compost bins. I hope in time it will become a real community affair.

It is very cold and wet here during the winter and the garden has gone into somewhat of a recess, though we are still enjoying homemade preserves made by the kitchen staff from our garden excess. The elderly ladies are shelling dried beans to save the seed for next year. I find that old people have much to contribute with their years of experience. They give us their ideas on growing as it used to be done — naturally.

The following is a poem which one of our 87 year old patients read 50 years ago and can still recite to us.

TREES

When you grow weary of the boasts of men,
Go to a tree my friend,
One that has stood long years within a silent wood.
Beneath its branches you will find a thing long lost,
Trees are content to be as God created them.
No tree that shed its falling leaves to autumn
Ever yearns beyond a hillside's immortality.
Go to a tree my friend
In the soft eloquence of budding leaf,
There you will find
A serenity beyond the voice of grief and faith,
Above the reach of humankind.
Man spends his noisy days in search of gain
But trees find God in sunlight, soil and rain.

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The Gold Underneath Our Feet

by Anne and Robin Hughes, St Arnaud, Vic.

Times are tough in the rural community and jobs are scarce. When we found we couldn't make ends meet on our 40 ha (100 acre) farm in Victoria's Golden Triangle, this was our solution to capitalising on the gold underneath our feet.

We had been running a small stud flock of Border Leicester sheep for spinning wool but with low prices from the wool brokers and their negative comments — 'you can't spin Border wool commercially' and 'that's only good for carpets,' we had to think again. With the registration of a black and coloured flock (Border and English Leicester and Border Cross) and establishment of a stud flock of English Leicesters, our sheep numbers increased rapidly and so did the need to do something profitable with the wool. We should point out that these fleeces range from very soft — suitable for light lacy items like shawls, through medium wool — useful for work jumpers, socks, heavy jackets and slippers, to strong fleece which is excellent for rugs, wall hangings and so on. The wool has exceptional tensile strength, is smooth and lustrous (in fact English Leicester wool is being marketed as 'lustre wool') and is better for dyeing than most other wool types. Fibre length of 15-20 cm (6-8 in) makes it very easy to spin. The wool types are suitable for most knitwear unless baby garments or very soft jumpers are required.

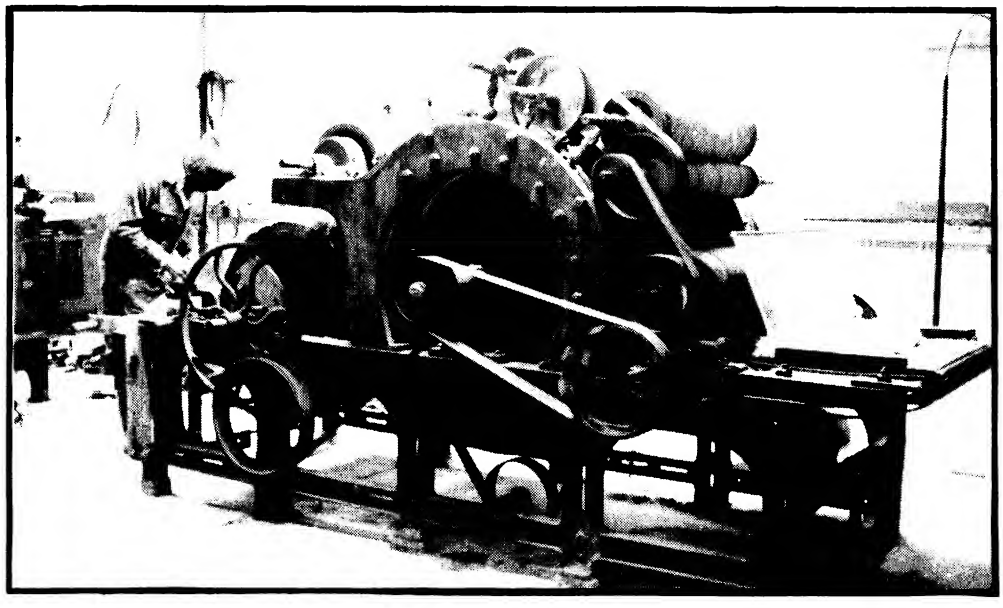
At the wool store, all our beautiful, clean, well skirted wool disappeared into the 'Crossbred' bin to our dismay, and with few enquiries from handspinners we decided to have the fleece commercially scoured and spun into yarn. When at peak numbers, our yearly clip will be about 400 kg (900 lb) and all the processors were talking tonnes (tons!). Not to be deterred we decided that if all those big commercial companies didn't want to process our wool, we'd jolly well do it ourselves — so we did.

We spent eighteen months, made numerous phone calls and placed many fruitless ads before we managed to round up a motley assortment of antiquated and commercially obsolete equipment. The carders (3½ tonnes and 10 tonnes apiece) and the spinning frame (5 tonnes) are 'early Edwardian' whilst the gillbox and combs (1½ tonnes each), are 'nasty fifties'. All the machinery required extensive rehabilitation and cleaning before it could be used and, more importantly, we had to learn how to operate the beasts — this was no mean feat as all machines had to be completely disassembled, shipped, then reassembled and on some of them we didn't know which was the feed-in end and which was the take-off!

In the process of doing all this, building our 12 x 7.6 m (40 x 25 ft) concrete floored factory and mundane things like eating, we managed to spend all our capital. We were unable to raise money from any sources (bank — 'no income'; government bodies — 'no export potential'; Small Business Corp. — 'not our area'). So the awful day finally came when all we had was $8 in our passbook, no income and no immediate prospects of making any money — things really hit an all-time low. The Dept. of Social Security had told us we were not eligible for unemployment benefits as we were 'self-employed'. Eventually we had to bite the bullet, apply for the dole and started looking for the few and far-between jobs. This helped the financial situation but did nothing towards getting Cirrus Wool on the go and making money — a Catch 22 situation.

Needless to say, without a strong belief in what we are doing, unflagging (almost) optimism and herculean labours our venture would have folded pretty quickly. Moral support from friends and acquaintances in the wool industry has helped as has an increase in business; not enough to pay us a wage yet, but at least an increase.

Now, in September 88, 18 months on, we are about to have our first length of cloth woven and our modest showroom is well on the way. Despite the 'experts' who said we couldn't do it, we are carding and spinning our own wool (and carding wool for others). Our processing method is worsted — suitable for the longwools, Border and English Leicester, Romney, Lincoln, Perendale and some crossbreds. The



This is our small (3½ tonne) carder, circa 1900. It opens up the wool and turns it into a fine web suitable for further processing (gilling and spinning) or for handspinning. Each roller is covered with fine wire teeth similar to that on hand carders, devilish stuff but effective.

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Our black and coloured flock of wool producers comprising English and Border Leicester and Border Cross ewes.

Australian wool industry seems interested only in Merino and the woollen method. Ultimately we'll be able to offer commission spinning as well as carding for other longwool flock owners and are happy to take coloured wool as well as white, something the mainstream industry cannot bear to contemplate. To make the whole exercise even more unique, the factory is being run on alternative energy as our house, workshop and shearing shed have been powered by a wind/solar/backup generator set for 6 years now. The factory is at present run on a 32V petrol driven generator set which supplies a large battery bank but will shortly be run from a 32V wind generator instead. At the moment, Robin and I run the whole show, farm, sheep, house, garden and wool factory, but there is scope for employing others in the wool venture and this is our intention, as we are perpetually physically exhausted.

We are both committed to the 'small is beautiful' approach and see alternative energy and reduced consumerism as necessary for survival into the 21st century. Neither of us has any faith in 'progress' or science for the sake of science. Our heroes are Mahatma Gandhi, Masanobu Fukuoka (*One Straw Revolution*) Geoff Wallace (long time organic farmer) and Ian Gawler (*You Can Conquer Cancer*). Cirrus Wool, we hope, is our answer to falling income and a nonprofitable farm and our contribution to a better, cleaner, more peaceful world. As an acquaintance of ours remarked 'if you have a property, you're standing on a goldmine — you just have to work out how to get at it'.

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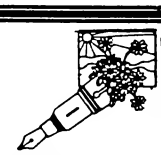
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Natural Goat Care

by Pat Coleby, Garfield, Vic.

Last issue I underlined (yet again) the programme for rearing CAE free kids. I sincerely trust that by now the message will be well and truly taken, and I can go back to nice plain articles on goat husbandry and management!

There are a number of necessary plans that should be made when kidding is due. Most importantly, what is going to be done with the kids? Are they to be kept as future milkers (assuming they are does)? Are they going to be wethered for meat at a future date, killed straight away for the same purpose, or was there a plan to wether a nice quiet buck for a goat cart? These things should be thought out well in advance, particularly if there are children in the family. They have to be taught that one just cannot have goat population explosions, and the unwanted males have to be humanely and firmly dealt with. It's all part of learning to farm stock: no matter what the variety, there has to be control of numbers and sexes.

Those that you decide to keep must be checked for horns, and dehorned by the time they are a week old at the latest, preferably at three days old; dehorning after that time can in my opinion be a cruel operation. It is no good thinking that you will make up your mind later whether to dehorn or not. It is not fair on kids to leave dehorning them until they are larger, and the horns are larger too. There are very few arguments in favour of leaving horns on, and a whole lot in favour of dehorning. Occasionally a farmer may want a wether (castrated male) to run with sheep, and prefer the animal horned if possible, but a goat in a domestic situation where there are children is not safe with horns on. Sooner or later it will use them, possibly in self defence against a teasing child, and someone may lose an eye or whatever.

Instructions for dehorning are to be found in my goat book. Please do *not* use caustic, or allow anyone else to do so. It may be easier for the operator but it can lead to terrible acid burns and deformities.

Next, males that are to be kept, except those intended for stud purposes, will have to be castrated; a bloodless castrator (which removes the ability to get kids, but not the libido), rings or a knife (both of which remove all male characteristics with the testicles), can be used. Any sheep farmer will help with the job if you do not have the equipment to do it yourself — for payment, of course!

Males that are to be kept for stud fall into the same category as does that are to be kept for milking. They must be reared as well as possible, handled the whole time and taught to lead preferably before they are a couple of weeks old. It is safe to run doe kids and buck kids together for two months, after that they should be separated. Another part of the early leading training can involve short journeys in a car or trailer, with of course a good bed of straw or hay on the floor — I favour an old foam mattress on the floor first. Any goat that has been moved whilst very young never worries when it happens as an adult; full grown goats that have never been in a van or trailer can find travelling quite traumatic, and they never seem to learn to relax like those that have learned to travel as kids.

Kids such as those I described in the last article will never be fully quiet; they are very good, but do not come as soon as I call like the others. Goats, more than any animal I know, must be trained from birth, they revert to feral characteristics very fast, and never forget their wild ways if allowed to develop them.

Kids must never be allowed or encouraged to jump or they will do so as adults, and cannot be cured of the habit. Nor must they have any contact with a fence that is not 100 percent secure. In other words they must all learn that fences are there to keep behind, and no way must it be possible for them to climb over, through or under. Once learnt, that valuable lesson seems to stick with them for life. Equally does the lesson that fences need not be respected, if they discover that.

If all things are carefully done, the goats will be pleasant and easy to keep, with the goat owner rarely if ever having to use a raised voice. Badly trained animals become stressed very easily, and a stressed animal is at risk for illness, and does not do as well as a calm one.

So we now have kids, of either sex, that have been well taught and trained. Part of that training is teaching them to eat hay and concentrates as well as grass and whatever else is available. This is as important as the leading and handling part, because if they are allowed unlimited quantities of milk their digestions will never develop properly. A goat that is going to be capable of giving a reasonable quantity of milk year in year out, without punishing herself too much, must be able to eat enough to produce it. Goats that have not learned to eat well as kids, always seem to have digestive problems.

Practically all the above applies to fleece goats as well as milking ones, especially the bits about handling. One of the best Angora breeders I knew reared her Angoras on these lines. She even insisted on dehorning them as she wished to have them quiet for handling at all times. Sadly she is no longer with us, but her goats were a pleasure to handle, whether in the show ring or paddock.

A letter in GR 66 asks about Cashmere goats, saying there was plenty on Angoras and milkers, but nothing on Cashmere. Apart from the different methods of shearing or stripping the fleece, differences do not exist. All goats have the same nutritional requirements and similar dispositions. When giving talks to fleece breeders I find that they have identical problems to those experienced with dairy goats, all due to the same reasons generally — poor quality and deficient feed.

When learning about goats it is a good thing to go to a show where the different types are being shown; that way one can get in touch with breeders and breed societies and find out about markets for the products, be they milk, fleece or meat.



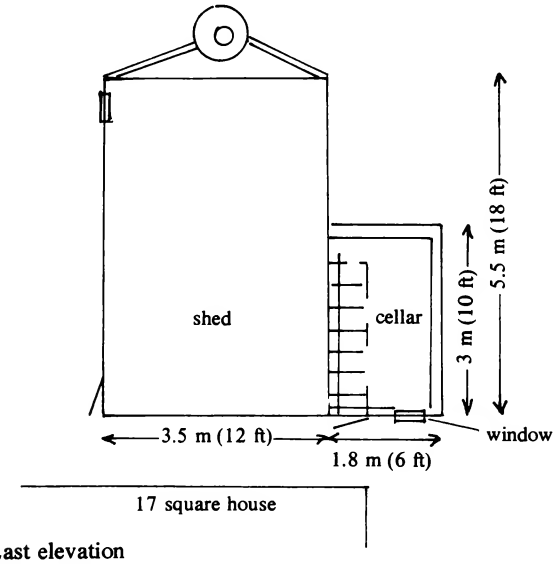
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A SIMPLE CELLAR

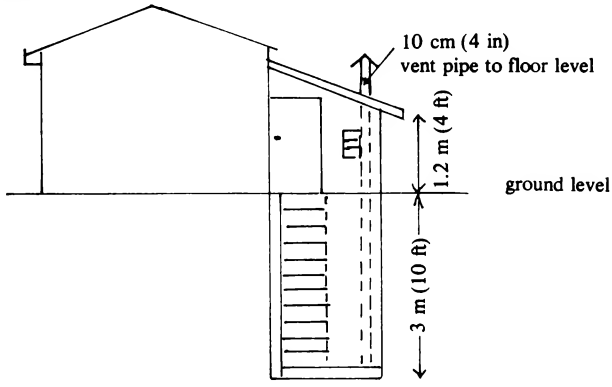
by Emmie Ramsay, Warooka, SA.

Some years ago I intended to send you a plan of our cellar, and a request in GR66 prompted me to do something about it. When we built our home 30 years ago, we didn't even think of putting a cellar underneath. We did think of an electric cool room, but as our ideas have changed we thought more and more about a cellar to store our dried and fresh fruit and vegies, seeds, grain, and eggs etc. Each time we'd seriously consider *how* to build a cellar and where. We thought possibly under the back verandah but the task seemed pretty impossible. Our home is stone with 35 cm (14 in) thick walls and we didn't want to unsettle that! Across the back is a 1.2 m (4 ft) concrete path and my shed is built there just off the verandah — we decided that the cellar could go alongside. I can't remember when we built it, maybe 5 or 6 years or more ago, but I'd hate to be without it now. We had a backhoe to dig the hole and our elder son Greg, who's a builder, did the rest. The cellar is made of 20 cm (8 in) cement blocks with plastic sheets as damp proofing between the earth and the wall. The 10 cm (4 in) thick damp proof floor is cement lined. The stairway is made of 2.5 cm (1 in) square tubing frame with wooden steps bolted on. We had intended originally putting a mezzanine floor at ground level for summer coolness, but found it unnecessary, as it keeps beautifully cool without. The roof overhangs the north wall, so that it is shaded in summer and we have creeper and shady plants in tubs on the east and west sides for shade.

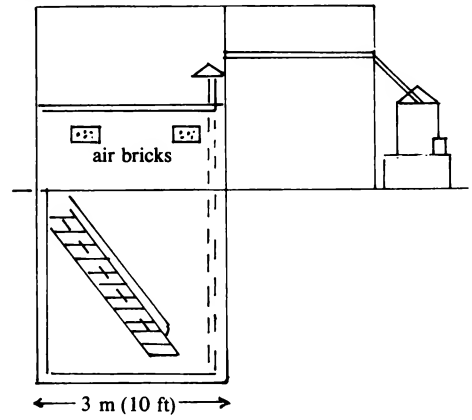
Plan



East elevation

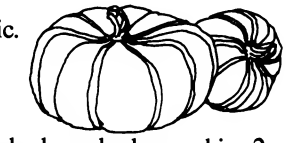


North elevation



Ways with Pumpkins

by Jill Redwood, Goongerah, Vic.



Don't know what to do with those winter stored pumpkins that have seen better days? Here are some ideas to help you out.

RECIPES

Ma's Pumpkin Fruit Cake

Cream 1 cup mashed pumpkin with 125 g (4 oz) butter, 2 tbsp treacle and ½ cup sugar. Beat in 2 eggs and 450 g (1 lb) mixed fruit. Add 1½ cups w/meal SR flour, a pinch of nutmeg and cook 1½ hours in a slow to moderate oven.

Not Flo's Pumpkin Scones

Rub 1 tbsp butter into 2 cups of w/meal SR flour with a pinch of salt. Mix in an egg, 1 cup cool mashed pumpkin, ½ cup of sugar and a tbsp of hot water. Roll out to 2 cm (¾ in) thickness, cut into shape and bake 8-10 minutes in a hot oven (to heat the oven quickly — go out to the wood heap and fill ya pinny full of chips, then chuck 'em in the fire and stand back!).

Bronny's Pumpkin Pie

Beat together 675 g (1½ lb) of cooked mashed pumpkin, 2 eggs, 1½ tsp of cinnamon and or nutmeg, a good handful of sultanas, ½ cup of honey, 30 g (1 oz) of butter, and 3 mashed bananas, maybe some milk if needed, and then cook till it sets, either in a pie crust or with a crumble mix on top.

Pa's Pumpkin Soup

Fry 2 onions or leeks and 4 cups grated pumpkin in 2 tbsp of butter for 10 mins. Add 3 cups of chook, miso or vegie stock and simmer till tender. Mash, ziz or puree. In another pot, melt 30 g (1 oz) of butter with 3 tbsp of flour. Stir for a bit, then add the soup mix, 1 cup milk, salt, cayenne and nutmeg. Simmer for a few minutes more and serve with chopped parsley or croutons.

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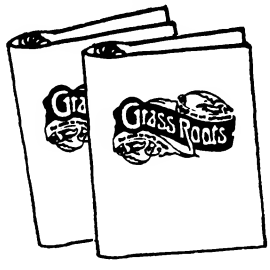
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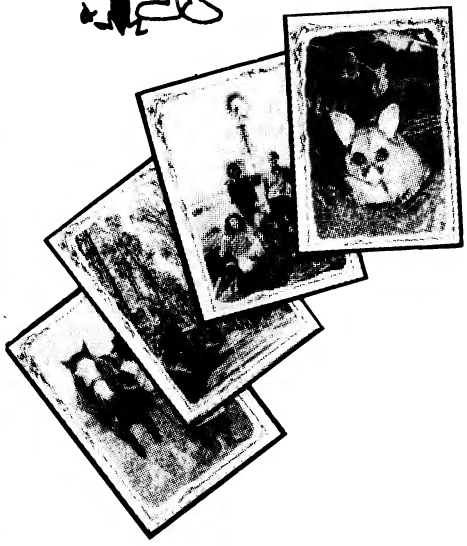


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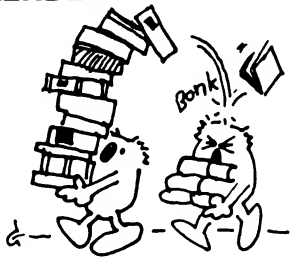
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WATER WORKS

Clean Water From a Dirty Roof

by John Elliott, Box Hill North, Vic.

East Gippsland is endowed with some wonderful natural attributes, one being a plentiful supply of rain. Roofs however still get dirty from wind-borne debris. The problem of getting clean water from a dirty roof has been addressed in previous issues of *Grass Roots*. My solution has proved to be effective and the 'waste' water goes to good use.

I set up the downpipes so the flow is down from the gutter to the ground, along at ground level to the tank and then up and into the tank, in a U shape. A fibreglass flywire screen at the top of the tank inlet stops large floating debris. All debris heavier than water stays in the bottom of the U and floating debris is retained in the downpipes.

The bottom of the U has screw caps on both ends, which are made watertight with teflon tape, although I am searching for some suitable rubber washers. Every two months or so, the screw cap at one end is opened. With a head of over 3 metres (10 ft) and a significant volume because of the length and diameter of the pipework, the 'gusher' cleans out all the accumulated rubbish. The tank is staying clean and the water is sweet.



Above: The 'gusher' at work cleaning out wind-borne rubbish, watched pensively by John.

Below: This gives readers an idea of the construction of the pipework to the tank. The stand is full brick and used as a coolroom.

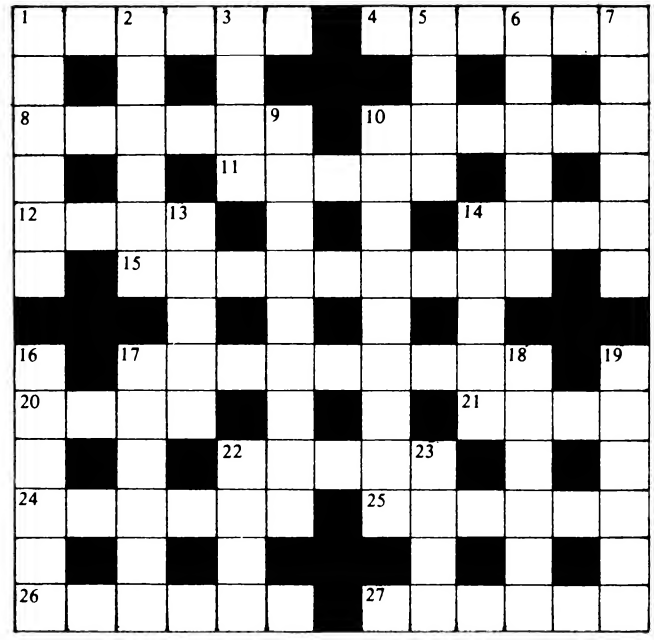


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CRYPTIC GRASSWORD

by M. Riley, Newborough, Victoria.



Across
1. Gorilla makes huge copy, (3, 3).
4. Wheeler or dealer has severe trial.
8. Me in car with a picture taker.
10. Bar led to trumpet sound.
11. Idea led initially to perfect type.
12. New name for hair.
14. You in age for malarial fever.
15. Led in true arrangement for interval.
17. Len's prone to reform staff.
20. R.A.F. returned from a distance.
21. Sure about trick.
22. Inexperienced for bowling.
24. Ray about to can the bird.
25. Detest being examined.
26. New desire to live.
27. What tends to be present within.

Down
1. Come to be fit.
2. Meg and I in constellation.
3. Ripe for Persian fairy.
5. There's a small spring in the drill.
6. A green to make furious.
7. Rung between two poles for climbing.
9. Dares vary for antagonist.
10. Fish dance or goal, but not in tennis, (4, 2, 3)
13. Come into part of entertainment.
14. Dread being a snake.
16. Does the fox trot?
17. Colours arranged in pats.
18. Rustle produces brightness.
19. Led and topped.
22. Solving riddle includes network.
23. Underneath is tidy within.

Solution on page 56.

Going Solar

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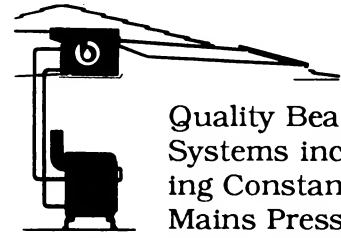
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COME IN SPRING

Come in mid-summer,
see the shrub roses in bloom
along the banks of
Black mountain creek.

Come, a clear moon-lit night
we will walk into the forest
our steps ringing
on the old stone path.

Come in winter
and the chance of snow
the air so biting fresh
and inside the cottage
blackberry wine and stories
the fire crackling.

Come in spring
with the wind
and we shall plant
an apple tree
that I will look after
in your absence.

D. Fraser Mackay.

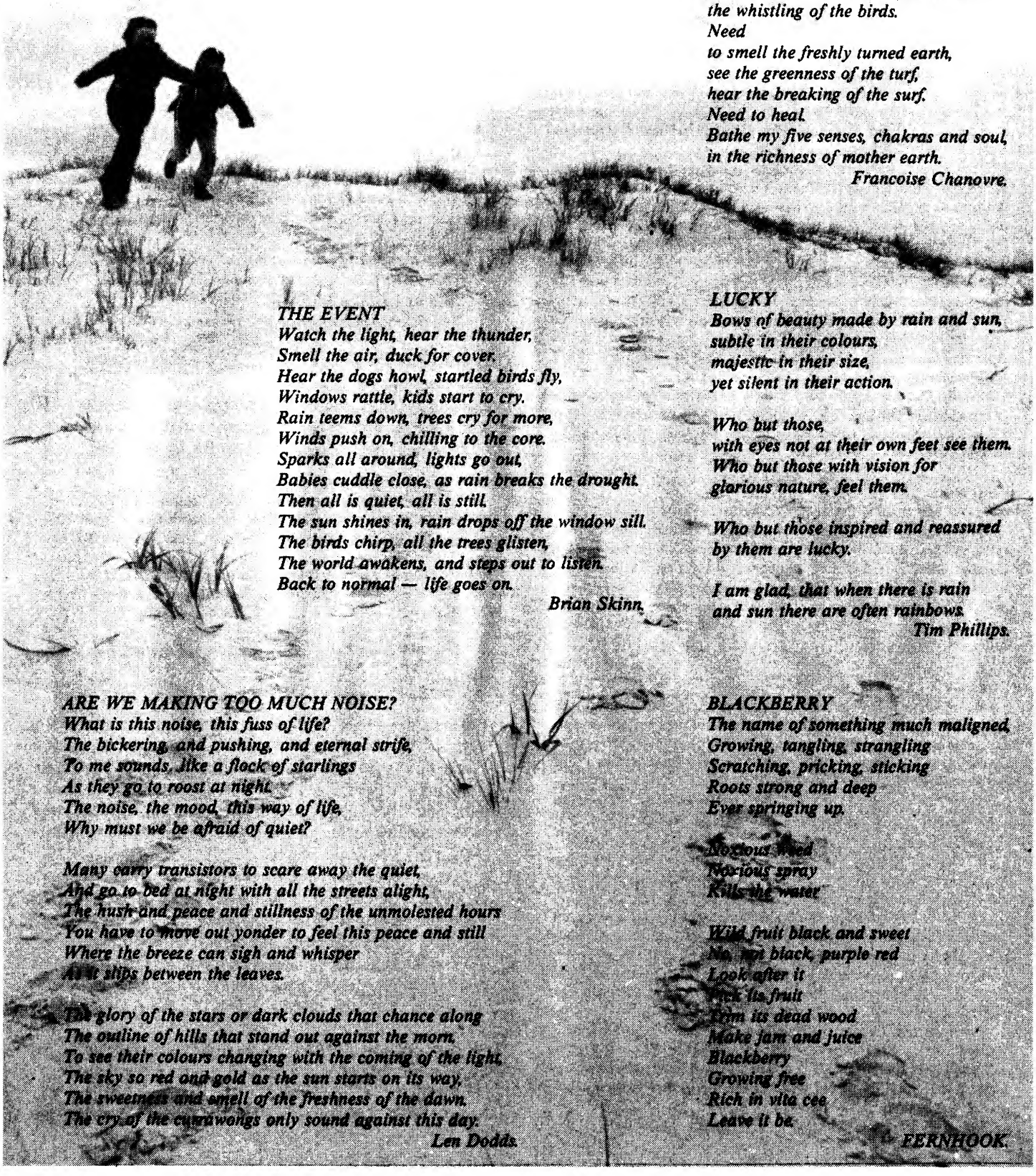
HERITAGE

Gather from the wilderness
Its strength, its love
Of everlasting freedom
Proclaimed from high above.
Listen to the waterfall
Without preconceived thoughts
Of how, when or why
Such miracles are wrought.
Measure the distance
With shaded eyes widened,
Mountains stretched to infinity,
Rugged heights unclimbed.
Fathom the depths unmeasured,
Wide rivers or quiet streams,
For beneath the rippled surface
Dormant lie future dreams.

Jean Opperman.

Don't you loathe people who knock things off?
As if it is their right?!
They sneak around when you're not there,
Or in the middle of the night.
Well here's a message for one thieving sod
(I really don't want to boast)
But those beautiful vegies you swiped last night
To place around the roast
You thought they were pumpkins, didn't you?
Hanging over the boards,
Well you're in for a shock, my dear old fruit,
'Cos they're ornamental gourds!
Now I'll tell you about my auntie,
She went out to pay a bill,
And had to deliver a specimen for a friend
Who was very ill.
She took a short cut through the market,
And then as the doctor's she neared
Felt in her basket for the bottle,
But the damned thing had disappeared!
Well they didn't half laugh, I can tell you,
And why is this, do you ask?
The receptacle they had put it in
Was an empty whiskey flask!
Now the reason I've brought up this subject —
And this story I swear is true —
Is that thieving backfires as you'll see by these yarns,
So I'm staying honest, aren't you?

Sybil Gray.



NEED
Need the peace and quiet
that my heart feels free.
Need the break from people
that brings the best in me.
Need to hear the bubbling of a brook,
the whistling of the birds.
Need
to smell the freshly turned earth,
see the greenness of the turf,
hear the breaking of the surf.
Need to heal.
Bathe my five senses, chakras and soul,
in the richness of mother earth.

Francoise Chanovre.

THE EVENT
Watch the light, hear the thunder,
Smell the air, duck for cover.
Hear the dogs howl, startled birds fly,
Windows rattle, kids start to cry.
Rain teems down, trees cry for more,
Winds push on, chilling to the core.
Sparks all around, lights go out,
Babies cuddle close, as rain breaks the drought.
Then all is quiet, all is still.
The sun shines in, rain drops off the window sill.
The birds chirp, all the trees glisten,
The world awakens, and steps out to listen.
Back to normal — life goes on.

Brian Skinn.

LUCKY
Bows of beauty made by rain and sun,
subtle in their colours,
majestic in their size,
yet silent in their action.

Who but those,
with eyes not at their own feet see them.
Who but those with vision for
glorious nature, feel them.

Who but those inspired and reassured
by them are lucky.

I am glad, that when there is rain
and sun there are often rainbows.

Tim Phillips.

ARE WE MAKING TOO MUCH NOISE?
What is this noise, this fuss of life?
The bickering, and pushing, and eternal strife,
To me sounds, like a flock of starlings
As they go to roost at night.
The noise, the mood, this way of life,
Why must we be afraid of quiet?

Many carry transistors to scare away the quiet,
And go to bed at night with all the streets alight,
The hush and peace and stillness of the unmolested hours
You have to move out yonder to feel this peace and still
Where the breeze can sigh and whisper
As it slips between the leaves.

The glory of the stars or dark clouds that chance along
The outline of hills that stand out against the morn,
To see their colours changing with the coming of the light,
The sky so red and gold as the sun starts on its way,
The sweetness and smell of the freshness of the dawn,
The cry of the currawongs only sound against this day.

Len Dodds.

BLACKBERRY
The name of something much maligned,
Growing, tangling, strangling
Scratching, pricking, sticking
Roots strong and deep
Ever springing up.

Noxious weed
Noxious spray
Kills the water

Wild fruit black and sweet
No, not black, purple red
Look after it
Pick its fruit
Trim its dead wood
Make jam and juice
Blackberry
Growing free
Rich in vita cee
Leave it be.

FERNHOOK.



kids pages



Hi GR Kids,

It's been a great term, I've been coming home each weekend. I get sick of all the travelling but it's worth it to wake up in my own bed of a Saturday with the cats all over me, and to eat Megg's scrumptious soup and potato casseroles. I absolutely love potato. When I was little David and I used to make toasted potato sandwiches, which we loved but it would send Megg into disapproving fits. (She still has them over what we both eat!)

I promised to help lots of a weekend — but — I was mucking about after lights out one night and broke a bone in my foot so I've been on crutches most of this term. I do like all the spoiling I get but my Silkies and quail need looking after and the weather is right for bike riding so it will be good to have two walking feet again. I thought I was never going to walk again the other night — I slipped on the stairs at college and fell down with my crutches and legs going everywhere. It was back to bed for a few days with mild concussion but luckily my foot wasn't hurt. I thought it would be fun walking on crutches but it is awful: they hurt under my arms and my hands, I can't carry anything, and worst of all, we have steps and stairs everywhere at school and the boarding house.

I'm missing out on helping Megg get her turkeys ready for the Melbourne Show; lucky me, but I'll probably also miss out on being able to go, which isn't so lucky. Oh well, I've only got a week or so and then I'll be running around again. Hope all you GR kids are well and not suffering from the flu or anything.

Love, Suni.

Dear Suni,

Hello! My name is Tasleema Dubloo and I'm 10 years old.

Two weeks ago we, (mum, my brother and I) moved to our new farm at Nimbin with our budgie Tweetiepie and our two kittens Snoopy and Cuddles. One day my brother's kitten Snoopy had a tick. It affected him in his back legs. Snoopy couldn't walk for a week but he's slowly getting better. They're really funny to watch when they chase each other and wrestle on the ground. Usually Cuddles wins because Snoopy isn't fully better yet. Bye for now.

Tasleema.

Dear GR,

Hi, my name is Llywela, I'm 14 and I've only just discovered your great magazine at our local library. My whole family are organic gardeners and we try to grow our own food (carrots, lettuce, potatoes and the like) although not always succeeding. I enjoy writing poetry and hope to see some of mine in GR one day.

Llywela Williams
BAYSWATER 3153.

Dear Suni,

Hi to Suni's Megg and David as well as a very big hello to Suni. I go to a boarding school in Victoria too, so I have lots of stories of my own to tell — as well as reading about Suni's stories.

I'm 13 years old, and in year 8 at school. Recently, for science, the year 8 students had to dissect a sheep's heart and lungs. It was really gross. Next week we have to dissect a whole mouse!

I live on a farm in a small, rural town not far (an hour drive) from Bendigo. I enjoy my boarding school, but I am always anxious to get home and see my other family and friends.

I enjoy reading GR especially the kids pages and Down Home on the Farm. I will most likely write to you again through GR. I'd like to find out about some of the things that happen at your boarding school and at your farm. I could tell you about some of the things that happen at my boarding school and at my farm.

Better go now (house-mistress coming to turn lights out!).

Melanie.

TEARS OF DEW *Llywela Williams.*

I see the world through tinted glass,
Lines of pane, so thoughts may last.
With red roofs shining through the haze,
I see this world; a red-brick maze.

With eyes of red and tears of dew
I see the sky, so crystal blue,
And in harmony with wind or rain,
I see this world; a world of pain.

Once a sapphire within a box of gold,
This world will be but a memory for me to hold,
And as I glance across this space,
I realise what happened . . it was my race!



DID YOU KNOW . . .

Snakes can open up their jaws to eat very large meals. The python, for example, can swallow a small deer — it is after all around 9 metres long. Apparently a python that has eaten a small deer does not have to eat again for another year.

Dear Suni and Rob Harle,

I think you could name the donkey Holiday, and she could be called Holly for short. I am four years old and my big sister is eight. Guess what her name is? Martha! Bye for now.

Miriam.

We think the name Holiday is perfect for the donkey foal and can just imagine Emma and Nicole running around with it and calling it Holly for short.

COOKS CORNER



SAVOURY TOASTIES



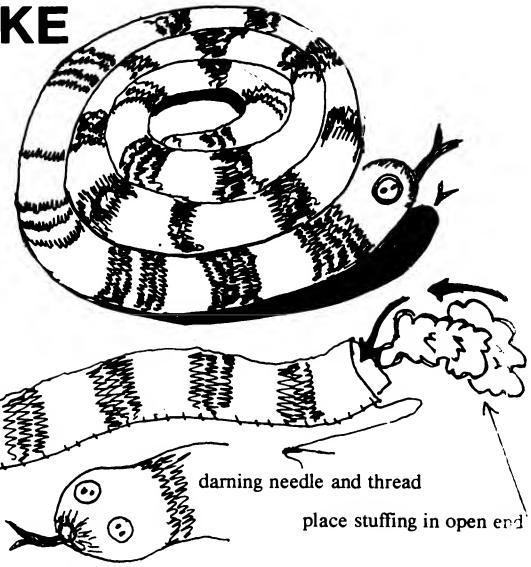
For toasties you need to cut the bread into small pieces (if it is a special occasion you may be allowed to use biscuit cutters). Place the shapes — fingers, triangles or whatever — on an oven tray and bake at 120°C (250°F) for about 30 minutes or until lightly browned. If you are not allowed to use the oven the toaster will be fine although watch carefully that the little shapes don't twist up and burn.

What makes toasties special are the toppings you can put on them. You can use ordinary things like peanut butter, Vegemite, jam, mashed banana, or you can be very creative.

- Mash cooked peas and add a little chopped mint.
- Mix finely grated apple and carrot with a little yoghurt or cottage cheese, decorate with thin slices of celery.
- Mix cottage cheese with a dob of honey and chopped walnuts.
- Mix cottage cheese with shredded pineapple and kiwi fruit, add a little chopped pineapple mint if you have it.

The list of variations could go on and on — no doubt you have a couple of favourites we haven't thought of. Don't forget toasties are perfect for snack time in your cubby or treehouse.

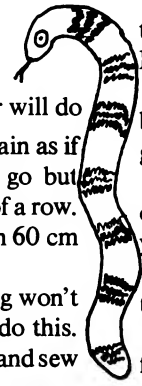
STRIPES THE SNAKE



If you can knit you will be able to make Stripes, a really colourful fellow who will brighten up your bed or shelves. Stripes can be made from all the odds and ends of wool left in mum's knitting basket or you may be able to purchase a couple of different coloured balls of wool at the reduced end of season price. If you are not an experienced knitter you will have to ask for help from someone who is, your mum, dad, teacher or a neighbour. You will need to ask them what the best sized needles would be for the wool you have, and then buy or borrow them. If you use needles not suited to your wool you could end up with very tight or very loose knitting and then feel disappointed because of all the work you've put in.

You will need:

range of different coloured wool, preferably the same size
pair knitting needles to suit your wool
buttons for eyes
scrap of red felt for the tongue
darning needle and thread
scissors
stuffing — fabric scraps, old stockings or similar will do



• Cast on 45 stitches and then knit a long strip in plain as if you were making a scarf. Join in colours as you go but remember to start or finish the new colour at the end of a row. Make Stripes as long as you like, somewhere between 60 cm (2 ft) and 200 cm (6 ft) is fine.

• Cast off your stitches and finish off so the knitting won't unravel. Ask for help if you are not sure of how to do this.

• Thread your darning needle with a matching wool and sew the edges of the snake's body together, as neatly as possible. Finish up with a couple of back stitches.

• Run your darning needle in and out around one end of the body and then tie the wool ends together tightly, so you have a gathered effect. Knot the wool firmly.

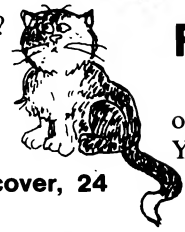
• Stuff the snake as evenly as you can with the fabric scraps or old stockings from the opened end and then sew it up like you did for the first end.

• Place your buttons in the right spot and sew on firmly, and then sew the felt tongue into place with a couple of stitches.

Stripes is now finished — and you may want to make a friend for it.



What did the necklace say to the hat?
You go ahead — I'll hang around.



BOOK REVIEW

The Parent and Child Programme, soft cover, 24 pages.

This is a learning programme covering reading, writing, and maths that has been created for parents and children to share at home. There are six age groups catered for and it's not necessary to start at the first books — they can be picked up at a later age group and still enjoyed.

Our review books are intended for the 3-4 age group and comprise three titles — *Beginning to Count, Numbers and Sets* and *Getting Ready to Read and Write.* Each of these books contains a wealth of games and activities that are fun and exciting to do — encouraging children to want to learn. Littlies couldn't fail to be interested in these colourfully illustrated thoughtfully planned books.

The three titles in the 3-4 age group would make excellent gifts (with the low cover price adding additional appeal) for preschoolers, or if you have a young brother or sister finding aspects of learning difficult they'll give a real lift to their learning.

Distributed in Australia by Heinemann Publishers Aust, PO Box 133, Richmond 3121. RRP $3.95.

FEELY BOOK FOR LITTLIES

A feely book makes a practical present for a little brother or sister and will cost you next to nothing to make.

You will need:

light card or strong paper for the pages
heavy card for the cover
paste or glue
scissors, ruler, pencil, paper punch
metal rings or string to fasten the book together
range of materials with different textures — sandpaper, bubbly plastic (often used to wrap mail order products), lace, velvet or corduroy fabric, string, spaghetti

A small book is easiest for a littlie to handle so work out the measurements and then rule up your covers and pages. Cut out, then punch holes along one side for the fastener.

Glue a different texture to each page; you may like to use both sides or you may prefer to keep the back of the page plain. Set aside in a safe place to dry.

Assemble the pages in the order you like, add covers and fasten together with the metal rings or thread firm string through and tie with a bow.

Write the child's name on the book cover and decorate.

On what side of a school should a peppercorn tree grow?
On the outside, of course!

While the Billy Boils.....

Have you put on extra weight during the winter months eating those deliciously warming casseroles and pies? Now that spring has arrived our thoughts turn more to recipes that are lower in calories and fats — mouth watering dishes bursting with the flavour of fresh garden vegetables and fruits. This issue we have several ideas to inspire you.

STIR-FRY VEGETABLES

1 small white onion
1 clove garlic
250 g (8 oz) snow peas
250 g (8 oz) cauliflower
1 carrot
½ cup water
1 tbsp cold pressed oil

Peel and chop onion and garlic. Wash snow peas and then top and tail them, removing any strings. Clean carrot and cut into matchsticks. Break cauliflower into flowerets. Heat oil in a hot pan, stir in garlic, quickly adding rest of vegetables. Constantly stir-fry for 2 minutes then add water. Cover with lid and leave on high heat for further 2 minutes. After checking that the vegetables are cooked stir in the sauce of your choice and serve.

Jason Lamont, Wattle Park.

MAURICE'S CURRY SAUCE

2 tbsp oil
¼ tsp cummin seeds
½ tsp cummin powder
½ tsp coriander powder
½ tsp grated/finely chopped garlic
½ tsp finely chopped ginger
2 tsp panch phora
¼ tsp chilli powder
200 ml (8 fl oz) tomato puree
1 tsp lemon juice

Heat oil. Gently cook all the spices for several seconds until a rich aroma is released. Add garlic and ginger and cook for 2 minutes with the lid on. Add lemon juice just before serving.

Panch phora:

2 tbsp black mustard seed
2 tbsp cummin seed
2 tbsp black cummin seed
2 tbsp fenugreek seed
2 tbsp fennel seed

Blender and store in a jar with tight-fitting lid.

Yvonne Clarke, Thornbury.

CELERY SAUCE

4 sticks of celery
1 small onion
1 tbsp chopped parsley
1 tbsp fresh ricotta cheese
pinch freshly ground black pepper

Wash celery and chop into 1 cm slices. Peel and chop onion. Place celery and onion in a medium saucepan, cover with water and bring to boil. Cool gently for 20 minutes. Add ricotta, pepper and parsley and blend to a smooth sauce, add more water if necessary and cook for another minute. Use sauce over steamed chicken fillets, steamed fish or broccoli.

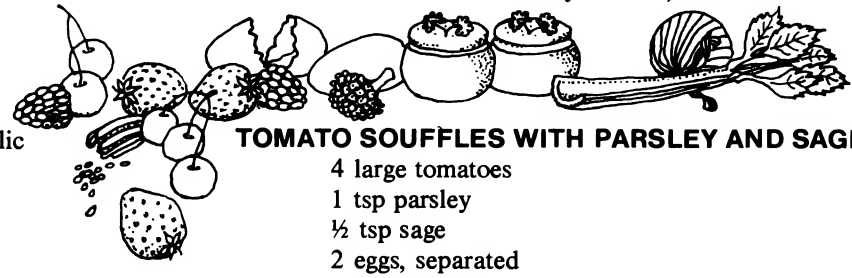
Julie Simmons, Stuart Park.

PECAN AND BROCCOLI SALAD

300 g (10 oz) broccoli
150 g (6 oz) bean shoots
¼ lettuce
100 g (4 oz) cottage cheese
100 g (4 oz) pecans
1 clove garlic
½ tsp sesame oil
1 tbsp lemon juice
freshly ground black pepper

Rinse broccoli and break into flowerets. If preferred steam lightly then rinse in cold water before using. Drain broccoli and rinse bean shoots. Wash and dry lettuce and break into bite size pieces. Chop pecans coarsely and mix with oil, lemon juice, crushed garlic and pepper. Toss the broccoli, bean shoots and lettuce with the cottage cheese, then before serving fold in dressing.

Mary Waters, Mount Pleasant.



TOMATO SOUFFLES WITH PARSLEY AND SAGE

4 large tomatoes
1 tsp parsley
½ tsp sage
2 eggs, separated
1 tbsp butter, melted
½ cup grated cheese
1 tbsp flour
2 tbsp milk

Preheat oven to 180°C (350°F). Wash tomatoes and cut the tops off. Scoop out flesh leaving a little around the outside. Put flesh aside to be used in another recipe. Melt butter, blend in flour and herbs, gradually add milk, then cook, stirring constantly until thickened. Add cheese and stir until melted. Beat in egg yolks, one at a time. Allow to cool. Beat egg whites until stiff and fold gently into cooled mixture. ¾ fill tomato cases with mixture and cook for 15-20 minutes in preheated oven. Serve immediately.

Nigel McIntosh, Curlewis

BERRY DELIGHT

250 g (8 oz) cherries
250 g (8 oz) strawberries
250 g (8 oz) raspberries
250 g (8 oz) plain low-fat yoghurt

Wash and stone cherries. Wash and hull strawberries. In food processor blend the raspberries. Mix the cherries and strawberries with the yoghurt, then spoon into individual serving dishes. Now carefully pour the raspberry puree over the top of each serve.

Sue Morgan, Red Hill.

TASTE NOT WASTE

by Helen Stephens, Croydon, Vic.

So you've made yourself a vegetable garden, after digging and raking, composting and sowing, weeding and protecting from pests, and you sit back to reap the rewards. No-one, however, warned you that the results of your labours would be either feast or famine, that everything would ripen at once and that some of the produce would be, well, less than perfect. Here are some practical ideas for using up the surplus and disguising less attractive pieces — outer leaves of lettuce, silverbeet stalks, and other rather tired vegetables — in dishes that the family will love.

LETTUCE LEAVES

The dark green outside leaves contain the most goodness, so don't feed them all to the chooks. We humans could do with the extra iron and vitamin C too. You may not have tried cooking lettuce leaves, but they're good chopped and added to curries and casseroles, in soups and even sauteed or stir fried vegetables. This is my favourite way of using up lettuce.





Lettuce Pie

Serves 4

Filling: 350 g (12 oz) outside lettuce leaves
600 g (1¼ lb) potato, sliced
2 tbsp oil
1 clove garlic, finely chopped
250 g (8 oz) zucchini, finely sliced
50 g (1¾ oz) shelled peas
2 tsp kelp granules
250 g (8 oz) ricotta cheese



Topping: 1 cup grated cheese (about 100 g)
40 g (1½ oz) butter
2 cups rolled oats

After washing the lettuce leaves well, place them in a saucepan with a little water and a close fitting lid. Bring the water to steaming point and then remove the leaves and put them to one side. In the same saucepan and with the same liquid cook the potatoes. Add more liquid if required. Meanwhile, heat the oil in a large pan and saute the finely chopped clove of garlic and the finely sliced zucchini for 5 to 10 minutes — until the zucchini is a little soft. Then add the peas and kelp and mix well.

When the potatoes are soft, mash them with the ricotta. Roughly chop the limp lettuce leaves and add them to the mashed potato mixture which should then be combined with the zucchini and pea mixture. Mix well.

Oil a deep pie dish, say 20 x 25 cm (8 x 10 in) and spread the mixture in. Now mix all the topping ingredients together well and spread over the pie. Place in a moderate oven (180°C/350°F) for about 25-30 minutes, until it is heated through and the top is starting to brown.

SILVERBEET STALKS

While I specifically mention silverbeet stalks, with a bit of care in selection and preparation (i.e. slicing or chopping finely, as appropriate), all stalks can be put to good use. There is very little that need go to waste from the home garden.

Vegetable Rolls

These can mask many stalks, are easy and are a big hit with the kids. Thicken with arrowroot some finely chopped, seasoned and sauteed vegetables. When the mixture has cooled a little, wrap it in spring roll skins (or filo pastry) available frozen at Asian groceries and some supermarkets. These are supposed to be deep fried, but I feel happier roasting them in just a little oil and turning them over so that two sides are brown. Make sure, though, that they do not touch each other in the dish as the sides will stick together and tear away when moved.

Pickles

Pickles are surprisingly simple to make and, if you use some pretty vegetable pieces too (e.g. vertical slices of button mushrooms and horizontal slices of carrot and zucchini), you'll have another vehicle for disposing of finely sliced stalks. They're handy as a basis for dips and are also good used sparingly in stir-fried vegetables.

OTHER UNWANTED VEGETABLE PIECES

Now, how about the carrots that all matured at once, or the cauliflower that, without disguise, is a bit sparse looking for the table? Of course, these can be used in the recipes above, but then silverbeet stalks aren't so successful in the following recipe.



Vegetable Pancakes

Lightly steam the vegetables and roll them in wholemeal pancakes with grated cheese. The pancakes themselves can be flavoured with garlic and/or herbs. Arrange these 'vegetable rolls' in a shallow baking dish and dot the tops with butter, or alternatively, cover with a sauce. Heat in a moderate oven.

Helen Stephens is the author of *The Australian Family Vegetarian Cookbook*, full of quick and easy, kid-tempting meals to set your family on the path to healthy eating. Hyland House (distributed by Lothian Books), RRP $12.95.

GARDENING HINT

Fine seeds, like lettuce and some herbs, can be mixed with soil and sifted through an old window screen. The screen can then be propped on bricks placed under each corner above the seeded area as a protection against heavy rain.

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A Fresh Look at Crop Rotation

CONCLUSION

by Michel Porcher, Gisborne, Vic.

Previous articles in this series have presented detailed examples of how to rotate crops to preserve soil health and produce maximum yields from your farm or garden. Last issue Michel listed the nutrient requirements of various plants and explained how best to meet these needs.

A major aspect of pest, disease and weed control in organic plant communities is diversity. On exploitations, gardens or farms, diversity is achieved in space by mixing crops. In time, rotations provide diversity. The most versatile approach to the subject in the field is to divide all paddocks and gardens into plots or beds then consider the rotations in each individual plot (see figure 1). Periodical major rotations can be considered. Several plots could be turned into pasture for instance or several beds turned into a chook run for a couple of years. The possibilities are great, and particularly on diversified mixed farmlets rotation may be the key to successful farming in the future.

The rules I have given are simply guidelines, not meant to be adhered to strictly. With the few explanations given hopefully the basic principles will be understood. It does not matter if some of those rules are broken on occasion but certainly the principles should not be continually abused as this will open the door to all kinds of problems. When a problem is already present however the rules must be strictly observed. For instance if anthracnose is present in a soil the rules regarding peas and beans must be respected, as well as those for lupins, vetches, lentils and other legumes which are also susceptible to this disease. There are plenty of alternative green manures to choose from to replace lupins. The only setback will be regarding the nitrogen level as no legume can be used, but this can be compensated for by working out an appropriate fertilisation programme.

Rotations are easy to work out providing that the system of production is flexible — for instance each kind of crop assigned to a specific bed or paddock, or even line. Records of crops grown in each bed/paddock must be kept, fertilisation too. A diary is very handy. A single plan cannot possibly be worked out for all growers in all situations. It is up to individuals to work out their own rotation system for their own situation. There are some computer programmes on the market that will assist with this, if you have a computer.

If one studies the rotations that have been adopted down the ages throughout the world one will find that many rules are broken but never for too long. One may get away with breaking the rules if everything is fine but it's better to be safe ... and it makes growing crops that much more interesting.

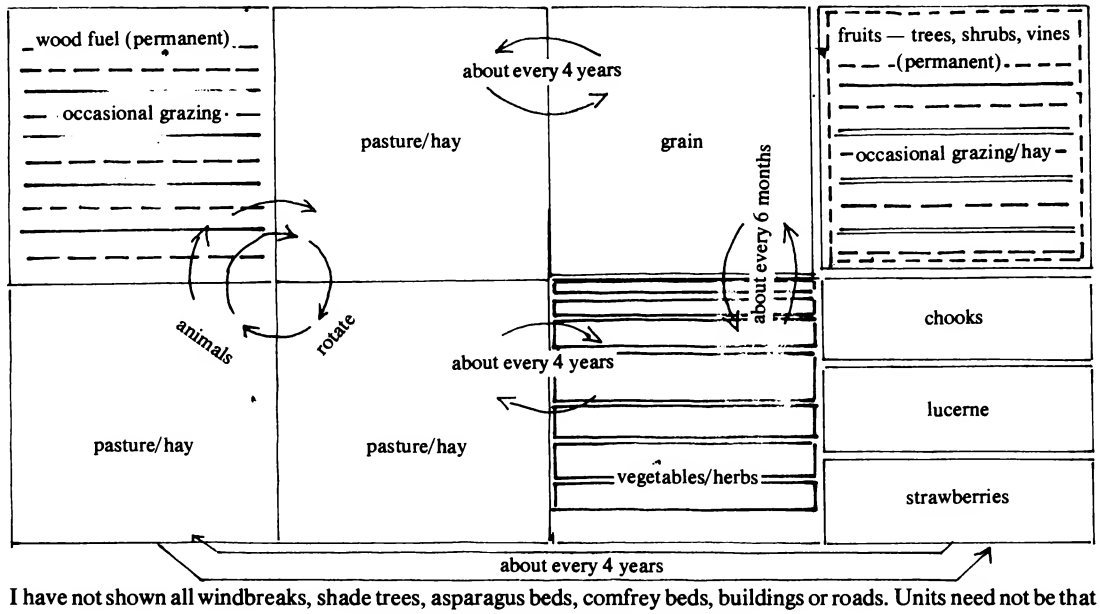
Further References

Plant Diseases Recorded in Australia and Overseas — Vegetable Crops, Australian Dept of Health, Aust. Government Publishing Service, Canberra, 1975. Lists all diseases affecting each vegetable commonly grown here. Very useful information.

Seed Production for the Australian Home Vegetable Gardener A & C Barry, Henry Doubleday Research Association, 4 North St, Mt Colah 2079. $3.75 posted. Has a good listing of vegetables and the families they belong to. Also useful as family relation means susceptibility to the same pests and diseases.

Compu Garden available from the company of the same name, 725 Richmond Ave, Silver Spring MD 20910 USA (about $US70 in 1986 — check current price). A software programme compatible with IBM computers that will allow anyone to work out far far more than just rotations. The only really versatile programme on the market that I know of. Let me know if you know of a better one, or if you're interested in working on such a project.

Fig. 1. Possible general management plan. (each square/unit is about ¼ acre or say 500 m^2)



Note: I have not shown all windbreaks, shade trees, asparagus beds, comfrey beds, buildings or roads. Units need not be that shape but the proportions should be respected.

The Saucepan Stand

by Tom Richards, Neerim South Vic.

One of my hates, possibly engendered by old age, is under-bench kitchen cupboards. All very neat and tidy, but even if you bend down and carefully put the pots and pans, colanders, moulis and bread pans, etc away, you still finish up on your hands and knees searching for the item you want to use. Worst of all are the saucepans which of course you use every day.

So when wandering through an old historic mansion in Melbourne and sighting in the kitchen a saucepan rack, I became interested. I made a quick sketch with estimated measurements, then went home to experiment. I thought you might like to make just such an item so I give you the benefit of my experience less the mistakes! My smallest saucepan is 11 cm (4½ in) diameter and the largest is 21.5 cm (8½ in). Vary to suit your own.

EQUIPMENT

11 m (35 ft) of 2 x 0.5 cm (¾ x ⅛ in) flat steel
21 button head bolts and (preferably hexagonal) nuts 0.5 x 1.5 cm (⅛ x ⅝ in)
metal shears
oxy-acetylene torch
drill
piece of pipe or block of wood about 23 cm (9 in) diameter. If using the pipe you will also need a clamp.

METHOD

Start by cutting the steel to lengths, by shears if possible or using an oxy-acetylene torch. The vertical legs are 1.5 m (5 ft) long and you need three legs. Drill 0.5 cm (⅛ in) holes in these legs starting at the bottom and at marked distances of 10, 38, 63.5, 88, 108, 131, 148 cm (4, 15½, 25, 34½, 43½, 51½, 58½ in). You should still have 6 m (20 ft) of steel left which you cut in two pieces for ease of handling — these are to make the platform on which the saucepans will stand. Each platform is like a triangle with curved sides (figure 1). If you were to try to curve the steel or bend it to shape you would find that it would kink and not have a regular curve. To make it flexible for curving, using the piece of pipe or block of wood clamp the end of the steel to the pipe or for the block drill a hole and nail it down (figure 2). This secures the end and then you bend the steel strip down over the pipe or block and start hammering about 2.5 cm (1 in) from the clamp. Slowly hammer the whole length of it working from the clamped end.

Fig. 1. Curved triangular platform.

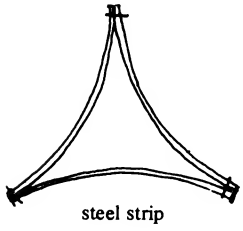
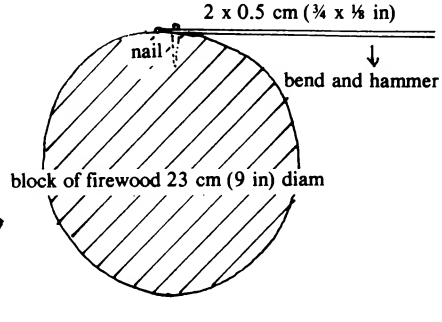
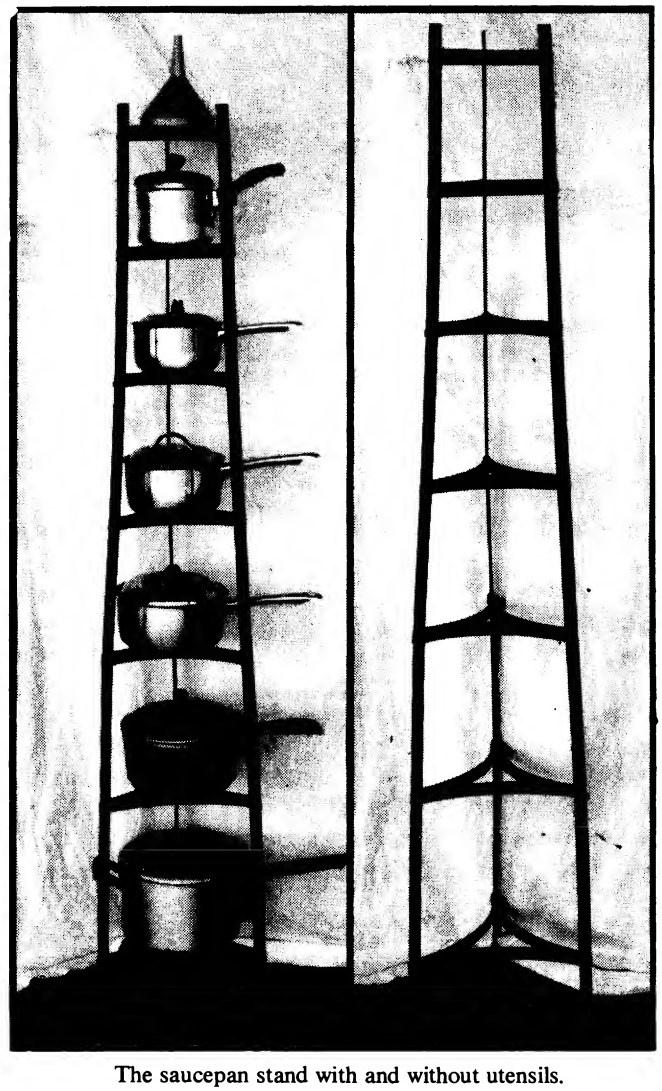


Fig. 2. Curving the steel.





The saucepan stand with and without utensils.

With 3 m (10 ft) of steel and a 23 cm (9 in) pipe you will finish with a coil like a spring with five coils. You will now find the steel easy to bend either for a greater diameter or lesser as required. Repeat the process with the other piece of steel.

Cut this curved steel into the segments for the platform by cutting three each of the following lengths — 18, 19, 21.5, 23, 25.5, 28 and 30.5 cm (7, 7½, 8½, 9, 10, 11 and 12 in). With shears there is no loss of length so they can all be premarked but with an oxy-acetylene torch or a grinder cutter each length needs to be marked again after the previous cut. Mark these segments for drilling, with holes 1 cm (⅜ in) from each end of the segment. Then drill the holes. You can't stack curved pieces on top of one another and drill through so do them individually. The distance between holes for each set of segments must be accurate.

A template is required for the top and the bottom. I used steel plates with spot welding of the legs to the template but I think timber or hardboard would be better. Mark out the circles and then mark the three legs equidistant around the

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Fig. 3. Template for top and base.

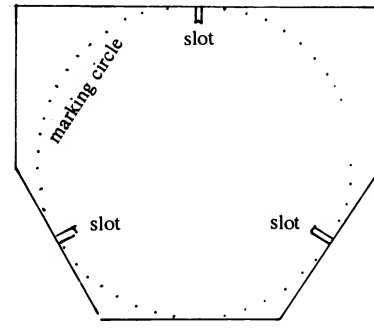
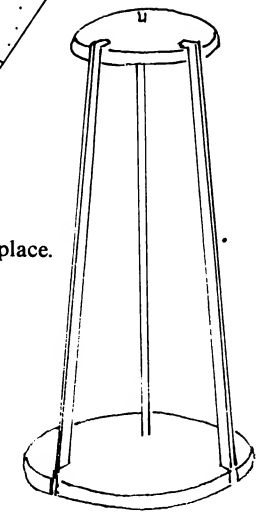


Fig. 4. Stand with templates in place.



circle. As long as you can get to where the slots for the legs are cut there is no need to actually cut the timber into a circle. The three slots are made big enough to accommodate the steel legs i.e. 2 x 0.5 cm/¾ x ⅛ in (figure 3). The top template has an outside diameter of 19 cm (7½ in) and the slots cut into that, and the bottom template is 34 cm (13½ in) diameter. Stand the vertical legs in the slots of the bottom template and either tie around with string to hold it in or put a rubber band made from an old motor tube around the three legs to keep them in the slots. The same is done with the top template but here you need to cover the slots with a bit of tin to stop the template sliding down the legs. It should now look like figure 4.

Start at the top and fit the segments to the legs as in the photo. Repeat this, working down from top to bottom. The curve of each platform will be different but the precurved steel will allow stretching to adjust to fit the holes. Grind off any sharp edges or corners and then heat the head of the bolt and the nut with the oxy-acetylene torch and belt hell out of them with a ballpeen hammer until you can't see the slot in the head or the shape of the nut and they look like rivets. This does not affect performance of the stand but does make it look like a genuine nineteenth century antique. Paint it black, put it next to the stove, put the saucepans on it and straighten your back!

CRYPTIC GRASSWORD

Continued from page 47.

B	I	G	A	P	E		O	R	D	E	A	L
E		E		E				I		N		A
C	A	M	E	R	A		B	L	A	R	E	D
O		I		I	D	E	A	L		A		D
M	A	N	E		V		L		A	G	U	E
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D		P	E	R	S	O	N	N	E	L		H
A	F	A	R		A		N		R	U	S	E
N		I		G	R	E	E	N		S		A
C	A	N	A	R	Y		T	E	S	T	E	D
E		T		I				A		R		E
R	E	S	I	D	E		A	T	T	E	N	D

PERSONALISED PRESENTS

Cross Stitch for Simple and Original Gifts

by Judith Magor, Newstead, Tas.

Counted cross stitch is my latest hobby. When it comes to gift giving time my thoughts turn to cross stitch for an answer when I want something simple, attractive, quick to make and yet just a bit different from what is available in the shops.

CROSS STITCHED GIFTS

Cards

My first venture was into card making. I lightly pencilled an oval shape onto a piece of Aida cloth (a loosely woven fabric used especially for cross stitch embroidery, available from handcraft shops). A simple design was then embroidered within the oval— a yellow duck for a new baby, a pink rose for a teenage girl or a toy soldier for a little boy. The oval was cut out carefully and positioned centrally on a piece of cardboard folded to fit a standard envelope. (My card came in a carton of off-cuts from a printer which included some light, attractively textured card.) The edges of the fabric were lightly spread with an all purpose glue (Aquadhere, Arbee or other craft glue) and the oval stuck to the card. The rough edges were covered by glueing on a strip of frilled lace or ric-rac braid, depending on the subject. A tiny ribbon bow covered the join. I discovered too that I could 'write' words on the fabric using a simple backstitch or filled running stitch and so I could include the name and date of birth of a new baby or some word of greeting.

Decorated Baskets

Small lidded baskets offer possibilities for slightly more elaborate designs. The design is stitched onto a piece of cloth just a little smaller than the basket lid. The completed embroidery is mounted on the lid and finished off with lace and ribbon in the same way as the cards, with the addition of a little padding under the fabric to give a softer appearance. Lining the basket with a small print fabric and putting some dried lavender under the material makes a very special gift.

Bookmarks

These make lovely little gifts to slip in with a letter or card. Cut a narrow strip of fabric and embroider with a single flower, an elaborate initial or a border pattern. The fabric should be slightly narrower than the backing ribbon. While the embroidered fabric can be sewn to the background ribbon a neater and quicker job is done by using double sided iron-on fabric, cutting a piece exactly the same size as the embroidered piece, sandwiching it between the embroidered fabric and the ribbon and pressing with an iron. I fray the edges of the embroidered piece before ironing it to the ribbon.

Notebooks or Diaries

My latest experiment is in covering small notebooks. I cross stitch the recipient's initials on Aida fabric, sew this onto a piece of fabric with a tiny print pattern and use this to cover a small notebook, centring the initials carefully on the front cover. A little padding under the fabric gives a softer look. Lace or ric-rac braid can outline the embroidered section.

Towels

Cross stitched towel ends are a bigger project but make a lovely special occasion gift. Hand towels for guests or for the kitchen are smaller projects. Cut a strip of fabric a little longer than the width of the towel and wash to allow for any shrinkage. Embroider the length of the strip — a twining leaf or flower design, a row of hearts or fruit, or for a baby a row of ducks or rabbits. Turn all the edges under and sew the strip to the towel a few centimetres from one end with lace or ric-rac braid between the cross stitch and the towel.

Jam Covers

If jam making for gifts is your specialty, find or design a pattern for blackberries, raspberries, strawberries or whatever is your favourite give-away jam. Cut a circle of fabric at least 10 cm (4 in) larger in diameter than the top of the jar. Embroider fruit and, if you like, the name of the jam. Trim the edges of the fabric with lace or bind with bias binding. Cover jam in the usual way with paper or a lid. Put the fabric cover over the lid and hold in place with a rubber band. Tie a ribbon over the band.

Further Suggestions

- Embroidered squares and oblongs of Aida can be made up into potpourri cushions and bags. A print fabric can be used for the back.
- A strip embroidered with ducks or rabbits, boats or flowers and sewn to the bottom of a towelling feeder makes a special gift for a baby.
- Binding the edges of a piece of work with masking tape prevents fraying and keeps the embroidery thread from catching. This is especially important for big projects like towel ends.
- Designs are not hard to find. Most libraries will have some books with patterns in them. A sampler is a bonus because any small segment from it can be used as a complete unit for a small project. Fair isle knitting patterns can also provide ideas. With some graph paper and coloured pencils it is possible to create your own designs.

Once you start, there are so many possibilities for creating delightful and inexpensive gifts with cross stitch craft.

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Pesticides and the Honey Bee

Part II

by Brian Brett, Londonderry, NSW.

Brian has already described how important bees are in the pollination of many fruit and vegetable crops, and what steps can be taken to protect them from pesticide poisoning.

The following is an illustration of the frightening number of toxic chemicals that are registered for agricultural purposes in Australia — and presumably used! No wonder that gardeners complain that they see very few honey bees these days. The wonder is that there are any left at all. A clear case for organic agriculture, don't you think?

In the table below, 'High' = highly toxic: severe losses may be expected if the pesticides are used when there are bees present at treatment time or within a day thereafter. 'Moderate' = moderately toxic: can be used around bees if dosage, timing and method of application are correct but should not be applied directly on bees in the field nor at the hives. Insecticides not listed may be considered as having low toxicity: can be used around bees with a minimum of injury. Herbicides can generally be considered as having low toxicity, with the exception of Dinoseb (trade name: Daturan) — very high; and Pyrazophos, a fungicide (trade names: Afugan, Curamil) — high.

Relative Toxicity of Common Pesticides

Active Constituent	Toxicity	Residual Effect (days)	Trade Names
Acephate	High	3+	Orthene
Aldicarb	Very high	4 wks	Temik
Azinphos-Ethyl	Very high	2-5	Cotnion-Ethyl,Gusathion, Kilathion
Azinphos-Methyl	Very high	2-5	Azithion, Benthion, Benzathion, Chemo-Thion, Co-Thion, Cotnion-Methyl, Gusathion
Bendiocarb	High	1+	Ficam
Carbaryl	High	3-7	Bugmaster, Carbaryl, Chewing Insect Spray, European Wasp Killer, Fleakill, Garden Dust, Cyno, Fenitrocarb, Folithion, Fortesan, Poultry Dust, Ravyon, Septene, Sevin, Cabbage Dust, Tomato Dust, Tomato Spray, Garden Doctor, Garden Spray, Landsan, Mancozeb, Rose Dust, Rose Spray, Tomecon Rosa
Carboforan	Very high	7-14	Curaterr, Furadan
Carbophenothion	High	1+	Blue Label, Green Label
Chlorphenvinphos	High	4-6	Birlane, Supona, Suprex, Barricade, Nexagan
Chlorpyrifos	Very high	1+	Reldan
Chlorthiophos	High	5	Celathion
Demetron-S-Methyl	High	Nil	Metasystox
Diazinon	Very high	2	Amidaz, Ant Killer Spray, Ant Killer Dust, Di-Jet, Diazinon, Diazol, Gesapon, Grass Grub Killer, Homepest, Keyzinon, Lawn Grub and Insect Killer, Neocid, Nucidol
Dichlorvos	Very high	1+	Dichlorvos, Insectigas, Key 109, Keyvap, Mafu, Spider Killer, Vapona.
Dimethoate	Very high	3	Dimethoate, Go-Mite, Perfekthion, Rogor Diostop, Rogor, Roxion Sucking Insect Killer
Disulfoton	Moderate	−2 hrs	Disyston
Endosulfan	Moderate	8 hrs	Bug-geta, Cabbage and Cauliflower Dust, Endogrub, Endopest, Endosan, Endosulfan, Hibiscus Spray, Superturf Insecticide, Thiodan, Thionex, Vermosca, Cucumber Dust, Multipest, One Dust, Rose Dust
Ethoprophos	Moderate	—	Mocap
Fenamiphos	High	—	Lawn Beetle Killer, Nemacur
Fenchlorphos	Moderate	3 hrs	Anti-Blo Powder, Flee-Flea Powder, Fowl and Fowlhouse Spray, Louse Powder
Fenitrothion	High	1-5	Fenitro, Fenitrocarb, Fenitrogard, Fenitrothion, Folithion, Insectigas, Sumithion
Fenthion	Very high	2-3	Baytex, Lebaycid, Tiguvon
Fenvalerate	High	—	Sumicidin, Sumifly
Iodofenphos	High	—	Bot Shield
Maldison	Very high	1-7	Bug-Aphis, Exterm, For Tree Borers, Fruit Fly Bait, Hy-Mal, Malapreme, Malathion, Malathon, Maldison, Dak Pot, Fortesan, Garden Doctor, Poultry Dust, Malascale, Radicol, Rose Spray, Sorghum Seed Slurry, Tomecon Rosa

Relative Toxicity of Common Pesticides

Methanidophos	High	1+	Monitor, Nitofol, Prefect
Methidathion	High	2	Supracide
Methiocarb	High	3	Baysol, Mesural, Repel
Methomyl	Very high	1+	Kipsin
Mevinphos	Very high	1	Phosdrin
Monocrotophos	Very high	1+	Azodrin, Cronofos, Nuvacron
Omethoate	Very high	1+	Folimat, Insect Killer for Flies, Le-Mat
Oxamyl	High	—	Vidate
Parathion	High	1+	E605 Folidol, Paramul, Parathion
Parathion-Methyl	High	2	Folidol, Methyl Parathion, Cellavit Floor Treatment, Termaproof Wood Preservative, Wood Preserving Oil
Permethrin	High	1-2	Ambush, Ant Spider and Cockroach Killer, Coopex, Perigen, Insectaguard
Phorate	Moderate	2-5 hrs	Thimet
Phosmet	High	1-4	Imidan, Imidine, Porect, Poron
Pirimicarb	Moderate	−2 hrs	Pirimor
Pirimiphos-Methyl	High	—	Actellic
Profenofos	High	—	Curacon
Promecarb	High	—	Carbamult
Prothiofos	Moderate	—	Tokuthion
Sulprofos	Moderate	—	Helothion
Temephos	High	3 hrs	Abate, Tempor
Thiodicarb	Moderate	—	Larvin
Thiometon	High	—	Ekatin

Source: *Peskem*, 8th Edition, July 1987, Department of Plant Protection, Queensland Agricultural College.

Part III next issue explains the importance of bees as pollinators for both commercial crops and home gardens.

HOMEMADE SOAP

CONCLUSION

by Marion Boetje, Brooweena, Qld.

Exotic Soaps for Special Occasions

There's more to soap than froth and bubble. Previous articles in this series have introduced the main ingredients and methods used in making soap, explained what to do when a batch doesn't turn out quite as planned, and given a number of interesting variations on the basic recipe.

If you are feeling a little adventurous, you may like to try something out of the ordinary in handmade soap. These recipes make unusual and personalised gifts — or something special to keep for when you feel like pampering yourself.

ROSEWATER SOAP

Rosewater soap is a fine-textured soap which retains a faint scent of roses. Its properties are slightly astringent, which means it is good for oily skins, although it does not leave the skin feeling tight and harsh like a heavy astringent does. Using the creamy Castile recipe from GR 13, omit 120 ml (4 fl oz) of the water when making the lye. When the lye is cold, add 120 ml (4 fl oz) of rosewater and mix in well. Bring both fats and lye up to the required temperature and proceed according to the directions in GR 13. Rosewater is available from places like Auroma, PO Box 187, Richmond 3131. Check the yellow pages to find your nearest supplier of herbal products.

GLYCERINE SOAP

A translucent glycerine soap requires the use of vast quantities of polypropyl alcohol and also involves a distilling process. However, an opaque glycerine soap can be made quite easily.

Grate or mince well-cured basic soap — Castile or Copro-Olive (GR 68, p. 38) are best. Vegetable oil soap does not grate successfully, but it can still be used. Rosewater or eucalyptus ones are good too. Place grated soap in a pan and add a little water to prevent burning. Do not add too much water or the soap will shrink excessively while setting. If it is a full batch, add ½ cup of unrefined glycerine (available from Auroma). Adjust for smaller quantities. Stir over low heat till it is combined, then pour into moulds. This soap is ready to use as soon as it is set because it is already a fully cured soap.

If you used vegetable oil soap or your base soap refused to crumble when grated, your glycerine soap will have the appearance of brawn — a bit weird to look at, but still great to use. If you used rosewater soap as the base, you will have the luxurious-sounding rosewater and glycerine soap. Eucalyptus and glycerine is nice too, even if it does sound like a cough mix! Strangely enough, the best soap for recycling as glycerine soap is a granular, understirred batch. It breaks up like a dream in an electric grater. So much for failures!

As mentioned, all these soaps (except the 'brawn') make great gifts, especially if packaged in attractive little calico or print bags. Wrap the soap first in plastic wrap or waxed paper so the oils don't leach out and stain the bags. Have fun!

BEES AND BEEKEEPING

by Ray Curtis, Narrogin, WA.

I have noticed in recent issues of *Grass Roots* several enquiries about beekeeping, so I would like to pass on to anyone interested in bees my experience with them. Firstly, all honey bees in Australia are the offspring of original imported bees. I believe there is a very small black Australian native bee which gathers nectar but is totally unsuitable for honey production. So make sure you find the right type of bee if you're thinking of putting a hive out in the bush and catching a swarm to domesticate. This is exactly how I started, with the assistance of a friend who was a hobby beekeeper at the time. We decided to pool our resources and by selling honey ended up with 20 odd 3 decker 10 frame hives, a two frame reversible extractor and settling tanks for the honey.

Although we were doing well for amateur beekeepers, we decided we could do better if we changed the strain of our bees. This can be done quite simply by replacing the queen with a superior bred fertilised queen. We ordered 'Starline' queens from an eastern states supplier and introduced them into our hives at the appropriate time. Prior to the changeover, some of the hives would very nearly eat you as soon as you went near them, but after the influence of the new queens took effect we had no further trouble. They seemed content with getting on with their job, when previously they would no sooner land on you than their tails would go down — with ill effect. The wisdom of our investment was soon evident in the amount of honey being produced, not to mention the pleasure of handling our hives.

There are a number of good books on beekeeping available which I would recommend would-be beekeepers to acquire, also State Depts of Agriculture have beekeeping literature available. These books will explain that the nectar collected is processed into honey by evaporation of the moisture by a draught set up by the bees fanning their wings. It is then capped over with wax when the bees think the time is right, which usually takes around 10 days. We found we could extract when the comb in the frames was 80-90 percent capped over. The year of the change of queens was a very good one and ended quite spectacularly with the weather just right for the local redgum flow, being both hot and humid. The flow that year was as I have not seen it before or since: one is hard pushed to convince people of the amount, but to illustrate, the leaves on the trees were shiny with the nectar dripping from the flowers and we were compelled to extract every weekend while the flow lasted, as it apparently took very little work by the bees in the processing of the nectar.



Checking the hives on this innovative trailer. The hives are positioned at a comfortable height and make moving a simple, easy operation.

Beware of what you wear and what you may have been doing prior to inspecting your bees. I was at the beginning doing quite a lot of time away from home and went straight from working on an old car, to have a look at my new hive, being only home for the weekend. They didn't appreciate the smell of oil one little bit — I thought it was nearly the end of my beekeeping ambition as bee stings can be fatal if you are allergic to them. So make haste slowly, perhaps the best thing would be to find someone who has a hive and gain a little experience along with them.

You may also be interested in a couple of mobile hive stands which I made. One had 5 down each side herringbone style and one on the drawbar, with a working platform down the middle. Hives are too heavy for one person to shift, but with a mobile stand, they are on it permanently. One only has to close the entrances when the bees stop flying in the evening, hook onto the car drawbar and off you go to the new site (more than 2 miles away) where the bees set up a new forage area the

Fig. 1. The new trailer seen from above.

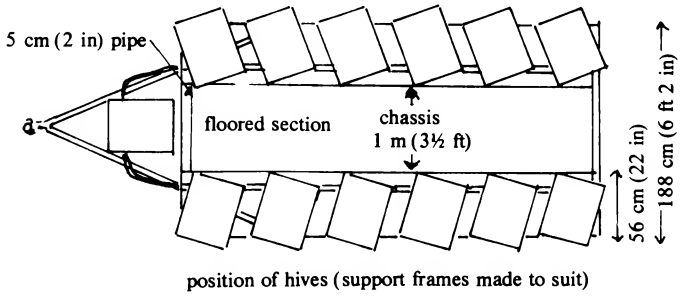
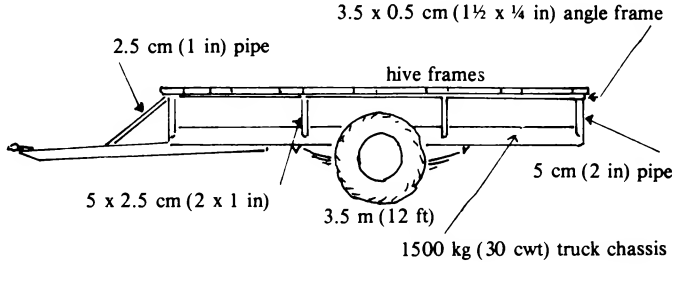
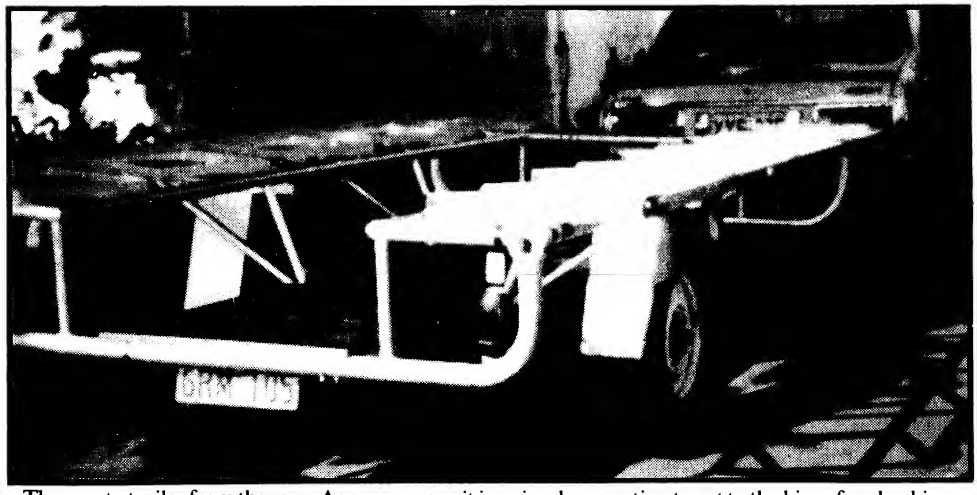


Fig. 2. Side view.





The empty trailer from the rear. As you can see it is a simple operation to get to the hives for checking or removing frames.

next morning. My original beekeeper friend has mine in operation with his bees at the present time. I built it almost entirely out of second hand water pipe, using 5 cm (2 in) pipe for the chassis which I bent in at the front to make the draw bar. I also used 5 cm (2 in) pipe for two shallow U-frames at the front and back to support the framing to which the hive support frames are welded. This was made out of 3.5 cm (1½ in) waterpipe with 2.5 cm (1 in) waterpipe stays for support. The frames to support and secure the hives were fabricated out of 3.5 x 0.5 cm (1½ x ⅛ in) angle, discarded bed rails. All was set up on 33 cm (13 in) Holden wheels with suitable springs, and a ball hitch and lighting were fitted to police specifications.

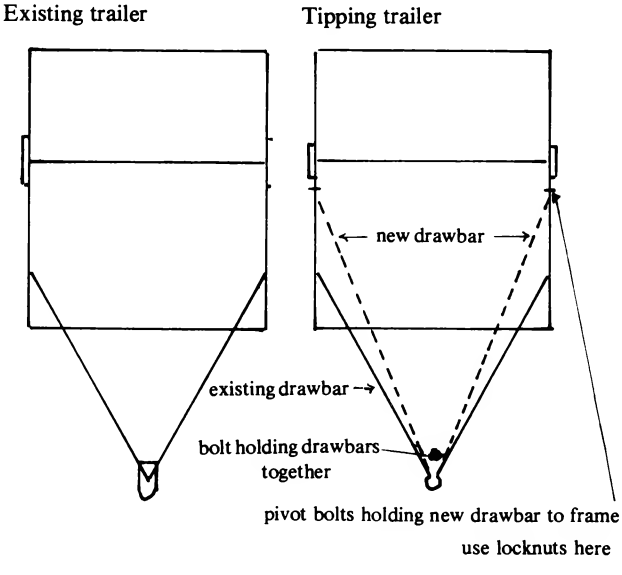
I have almost finished a new trailer similar to the one in the sketches (figures 1 and 2). It will accommodate 13 x 10 frame hives whereas the first one was only for 11. The new trailer is constructed on the side rails of a 1500 kg (30 cwt) Austin truck chassis with 5 cm (2 in) pipe front and back as before, and a hive support frame of 4 x 0.5 cm (1½ x ¼ in) angle iron. The hive frames, as before, are made from discarded bed iron. The hives are set up roughly 30 cm (12 in) above the chassis which has a floor attached between the raised sections and the hives are worked from here. There are approximately 20 cm (8 in) between each hive for ease of working. I have set this trailer up on 700 x 16 wheels to utilise my truck tyres, but as you can see there are endless possibilities in the construction even down to four or six hives if that was all that was required. Measurements will of course vary with each individual trailer. The back access to the trailer has no obstacles above floor level to interfere with the extraction of the boxes of combs. The overhang of the hives is approximately 8 cm (3 in) from the angle iron frame.

Another Tip Trailer

by Kevin Harris, Junee, NSW.

I saw the request for details for a tipping trailer (GR64, p. 10) and as I am always on the lookout for different ways of doing things I thought this may be of some benefit to other readers too. I have converted my 1.8 x 1.2 m (6 x 4 ft) car trailer to a tipper and have found it to be quite satisfactory. It does not have a mechanical or hydraulic lifting device, but by having the bolts that the trailer pivots on near the axle, the trailer is roughly counterbalanced and does not take much effort to lift. I feel that you would be able to raise or lower the trailer as required even with a load on it. The trailer can be held in the raised position by a piece of pipe placed between the underside of the old drawbar and the topside of the new drawbar.

Make a second drawbar as shown out of similar material (angle) to existing drawbar. Bolt second drawbar to trailer frame underneath existing drawbar about 15 cm (6 in) forward from axle (bolt onto flat brackets welded under frame, with a hole to take bolts). Take towbar coupling from existing drawbar and bolt onto new drawbar. Fasten both drawbars together just behind coupling by way of a bolt and nut. Have lugs welded to the nut to enable it to be undone more easily. When you want to tip trailer, just undo nut and raise existing drawbar. Trailer will pivot on new drawbar and can be propped into position desired for unloading.



A Basic T-shirt

by Sharyn Casper, Owen, SA.

This pattern makes a snug-fitting T-shirt with long sleeves. Anyone with a little sewing experience should be able to adapt it to a variety of sizes or styles and produce wonderful personalised gifts for everyone in the family.

DRAWING THE PATTERN

To make your basic T-shirt pattern you will need the following measurements.

Bodice: bust; waist; back length (from nape of neck to waist); scye depth (neck to waist minus underarm to waist); back width; chest width and shoulder length.

Sleeve: outside sleeve length — from shoulderpoint, around bent elbow to wrist; around arm at under arm + 2 cm (¾ in); wrist + 2 cm (¾ in).

Bodice

Draw a rectangle measuring ½ bust (line 1-3) x back length (line 1-2), as in figure 1, leaving room to adjust the length.

From top line down mark scye depth (line 1-5) and draw a horizontal line (line 5-6)

Measure 5-7 (½ back width) and 6-8 (½ chest width). Draw lines 7-9 and 8-10.

Measure 5-11 (¼ bust) and draw line 11-12.

1-13 = 6 cm/2½ in (8 cm/3¼ in for men).

13-14 = 2 cm (¾ in).

Make back neck curve (1-14).

3-15 = 7 cm/3 in (9 cm/3½ in for men).

15-16 = 2 cm (¾ in).

3-17 = 7 cm (3 in).

Curve front neck (16-17).

9-18 = 1.5 cm (½ in).

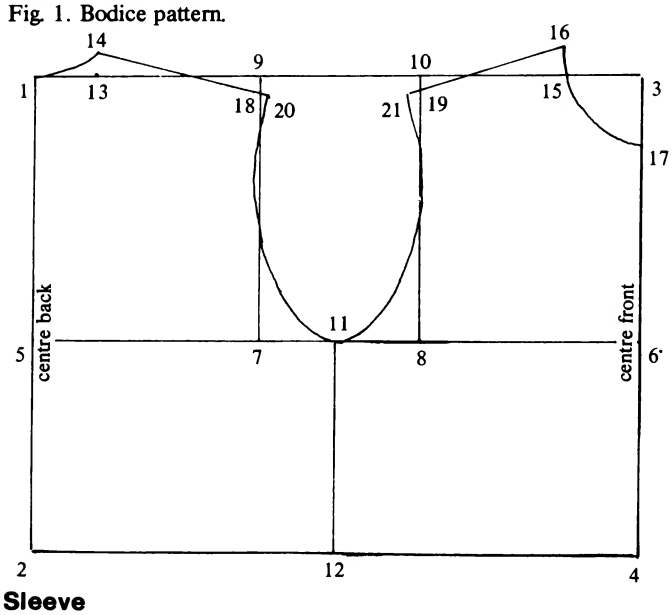
10-19 = 1.5 cm (½ in).

Draw back shoulder line 14-20 (past 18 if necessary).

Draw front shoulder line 16-21 (past 19 if necessary).

Draw in armhole curve (11-20, 11-21).

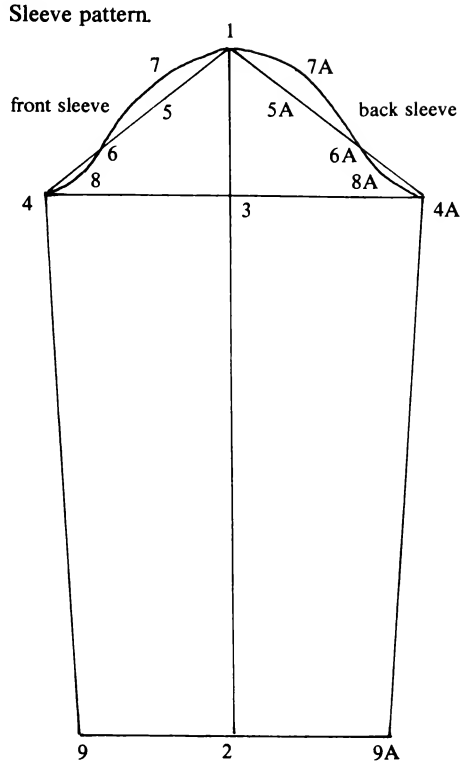
Fig. 1. Bodice pattern.



Sleeve

Draw line 1-2 (outside sleeve length), as shown in figure 2.

Fig. 2. Sleeve pattern.



Measure 1-3 (⅓ of armhole curve — 20 to 11 to 21 on bodice pattern, using tape measure on the edge).

Draw 4-4A (round arm measurement) squared through 3.

Connect 1-4 for back sleeve head.

Connect 1-4A for front sleeve head.

Divide lines 1-4 and 1-4A into thirds (5 and 6, 5A and 6A).

Mark points 7 (1 cm/⅜ in above 5) and 7A (2 cm/¾ in above 5A).

Mark points 8 (0.5 cm/¼ in below line 6-4) and 8A (1 cm/⅜ in below line 6A-4A). Curve 1-4 through 7 and 8, 1A-4A through 7A and 8A.

Draw line 9-9A (width of lower sleeve).

Connect 9-4 and 9A-4A to complete sleeve.

Once you have made your pattern it is a good idea to transfer it to cardboard. Later if you want to make windcheaters, dresses, cardigans etc., you will only need to trace around the cardboard block before making pattern alterations.

Divide front and back bodice at the underarm. You will have three block pieces — front bodice, back bodice and a sleeve. This basic pattern can be adapted in many ways.

MAKING UP THE T-SHIRT

Add a 1.5 cm (½ in) seam allowance to the basic block pattern. After tracing around the block extend the bodice pattern to the desired length — usually approx. 15 cm (6 in) — and make sleeve length as desired. Block neck is the natural neckline so remove neckband width (usually 3 cm/1¼ in).

After sewing shoulder seams determine the width and length of rib trim for neckline:

Length = ¾ of neckedge of garment.

Width = 2 x finished width (3 cm/1¼ in) + 2 cm (¾ in) seam allowance.

Stretch trim to check that it fits around the head. Join the seam to make a circle then fold in half, right sides out. Mark both neck edges and rib trim into quarters. With marked sections matching apply trim to the neck — stretching trim to fit neckline as you sew. Join underarm seams and finish sleeves and hem as desired — hem or bands as done with the neck.

In the next issue we will show you how to use the basic pattern to make a raglan and a dropped shoulder T-shirt.

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PENPALS

I'm 14 years old. My hobbies are horse riding, writing letters and listening to music. I will answer all letters. I would like a penpal of either sex aged 13-17.

Rommy Scoullar, PO Box 159, DONNYBROOK 6239.

Hi! I'm a happily married mother of 3 children aged 5, 18 months and 6 weeks. I'm a born again Christian, 28 years old and my interests include my family, friends, people, praying, reading (especially the Bible), writing, music e.g. Keith Green, gardening, entertaining, visiting, walking, cycling . I would like to correspond with other born again mothers between the age of 20 and 80.

Marie Millar, 88E Excelsior Ave, CASTLE HILL 2154.

Do you constantly sit by the letterbox and wait for the mailman, only to have him walk on by? Yes? We have one thing in common. I'm a 15 year old girl and like listening to Bros, Terence Trent D'arby, Ricky Astley and Michael Jackson. I love volleyball, reading, horseriding and ten-pin bowling. If you're interested drop a me a line.

Andrea Hunt, 13 Griffith St, BUNDABERG 4670.

I am a 26 year old single lady and my interests are crafts, nature, gardening, alternative lifestyles, also music, reading and cycling. I would like to hear from anyone of similar age living in Brisbane, male or female, married or single, who would like a new friend.

Debbie, 14 Lorraine Crt, LAWNTON 4501.

Hi! My name is Carrie McKell. I'm 14 and I come from the NT but I go to boarding school in SA. I would like to write to anyone from any age from 13 up. I like swimming, softball, football, basketball, writing and all sorts of music. Please write.

Marbury School, PO Box 396, STIRLING 5152.

Hello, my name is Rose and I would like to correspond with people from all over Australia. I love letter writing, music/piano, animals and the outdoors. I promise to answer all letters and would love to hear from people over 25.

C/- 85 Thuringowa Dr, KIRWAN 4817.

Hi, my name is Christopher Mitchell and I am 9 years old. I would like a boy penpal between 9 and 10 years old. My hobbies are riding my bike, football, sport and collecting stamps.

23 Rona St, FERNTREE GULLY 3156.

I'm looking for friends between 13 and 16, girls or guys, especially Qld. Are you looking for a friend? If so write to Meredith Hutchinson.

M/S 937, VIA ROSEDALE 4674.

I am 19, interests include writing poetry, music especially Irish folk, peace and thought. Anybody any age who would like to share, please write to Kerry Glastonbury.

11 Grandview Ave, WAGGA WAGGA 2650.

Hi, I would like to correspond with people from Australia and New Zealand I'm 26 years old, and from a little country in Scandinavia. I'm a student and a vegetarian. Hobbies are sports, my studies, alternative and natural medicine and Indian culture.

Cathrina Thomsen, Valmuevej 5, 4700 NAESTVED, DENMARK.

My name is Tracey Maree Watson. I am 11 years old. I would like to write to 10-13 year old boys and girls from anywhere in the world except the Hunter Valley NSW. I play squash, do mini-trotting, horseriding and I like reading. I will answer all letters.

44 Government Rd, WESTON 2326.

Hello! My name is Bradley Wessling. I would like a penpal (boy or girl). My hobbies are roller skating, skate boarding, drawing, BMX, lettering and a little gardening. I will answer all letters received.

79 Gympie Rd, Tinana, MARYBOROUGH 4650.

31 year old lady interested in sports, reading, music and children would like to write to people from the Cape, NT, America, Africa and the UK.

R Moar, 14B Kidner St, RAVENSHOE 4872.

I'm a 35 y.o. female interested in corresponding with Australian and overseas penfriends. My hobbies include reading and stamp collecting.

Ann Bradshaw, 33 Pryde St, CAMP HILL 4152.



SILKWORMS



by Pamela Davey, Shepparton, Vic.

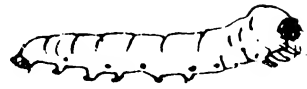
Silkworms are a fascinating hobby for young or old. They need very little maintenance, requiring only a constant food supply of either mulberry or Osage orange leaves and very simple housing.

My interest was caught at a local textile show, where I saw a display of raising, spinning and using silk from silkworms. Promptly after sending away my $2, I received a postage stamp sized piece of paper covered with about 50 or so tiny grey silkmoth eggs. These had been kept in cold storage since the previous year.

The eggs hatch out within days into tiny black worms, the size of an exclamation mark! They begin to eat immediately so mulberry leaves must be provided, chopped for tiny worms or freshly sprouted new leaves. The worms, which hatch in early spring, start to grow and grow, changing from black to a dusty white as they grow fatter. Along the way they go through four moulting processes, throwing off their old skin.

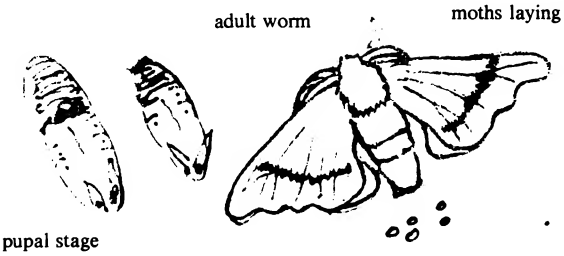
The container (a shoe-box is fine) must be kept clean, well-ventilated and supplied with fresh leaves, sometimes up to four batches each day. Old withered leaves and debris must be cleaned out along with the waste. To move small worms onto new leaves I use a camelhair brush, and line the box with newspaper as this can easily be replaced.

After 35 or so days the large fat white caterpillars begin waving their heads about. This is a sign that they are ready to weave their cocoons. They should now be removed from their box and placed into either empty egg cartons or a partitioned cardboard box in preparation for this next stage in their life. Paper cones can also be used, with one silkworm placed in each. My silkworms decided they wanted to find their own spots to weave a cocoon and wandered all over the place, so I found cocoons in several unusual locations. Ten days after the cocoons have been spun put them all together into a



adult worm

moths laying eggs

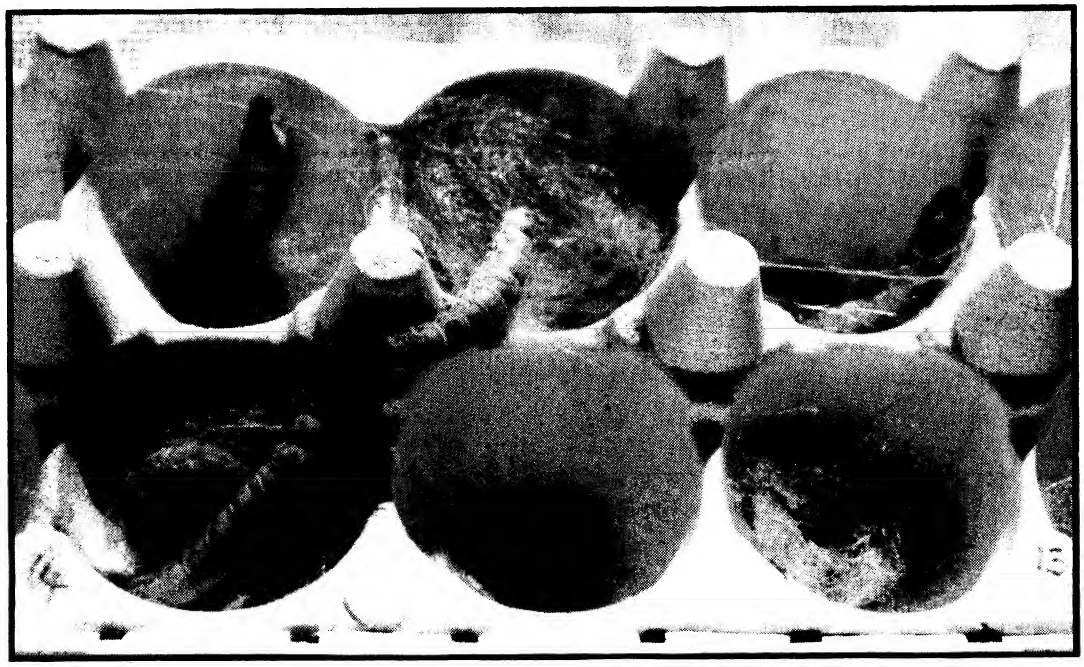


pupal stage

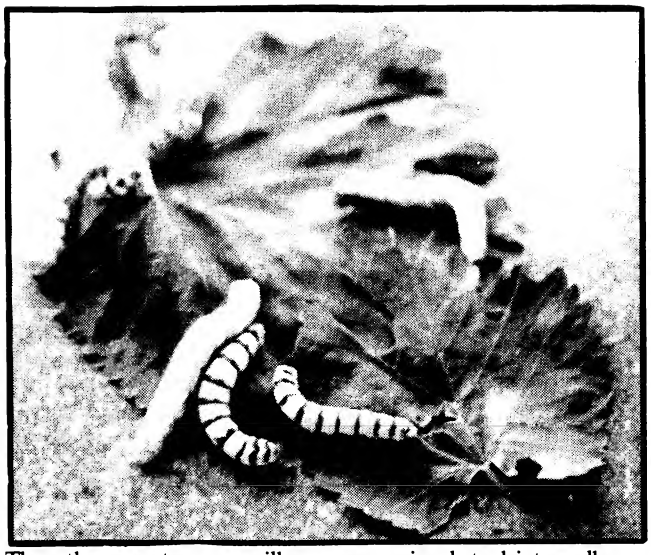
covered box. Some of my worms which tried but didn't succeed in weaving cocoons only managed to spin several sparse and scrappy threads, so I was able to observe the worms changing into silkmoth pupae, a process which is usually hidden inside the cocoon. The moths hatch out after seven days by breaking through the cocoon case. If you want to use all the silk for reeling, either the pupa inside the cocoon must be killed to prevent the moth hatching or the silk can be reeled from the living cocoon, leaving the moth to hatch out and lay eggs. This way you get the silk plus the eggs. You can of course settle for less silk and the fun of watching the moths break free from their cocoons.

When the moths emerge, the box should be lined with absorbent paper. The eggs are laid by the female after mating, and change colour from pale yellow to light brown then grey if they are fertile. Those that remain yellow are not fertile. The moths will die after mating, and the eggs must be kept in the refrigerator until next spring, for a new supply of silkworms. The paper on which the eggs have been laid can be cut into pieces for storing.

To spin the silk, submerge the 'live' cocoons in tepid water



An empty egg carton makes an ideal location for the silkworms to spin their cocoons.



These three quarter grown silkworms voraciously tuck into mulberry leaves. Silkworms may also be fed Osage orange leaves.

for 15 minutes or so, then find the loose end of the silk. You'll need at least six cocoons for each fine silk thread. Join the six threads together and reel off onto an empty cotton reel or a pencil. If the moths have emerged from the cocoons, these must be carefully cut open, the pupa skins removed from inside and the loose silk immersed in warm soapy water and kept at 90°C (194°F) for about 15 minutes to de-gum the silk. Rinse in warm water and drip-dry ready for spinning.

After gently reeling from the 'live' cocoons, leaving a thin layer of silk on (the pupa is not harmed), the cocoons can be put back ready for the moths to hatch out. To prevent moths hatching, steam the cocoons over boiling water for 30 minutes. These can then be kept for reeling off the silk at a later date. The best idea is to reel some cocoons off live, let them hatch, and also kill some cocoons so you have silk for reeling. That way you have silk and also a supply of eggs for next year's silkworm raising.

SOLAR POWERED GRAIN DRYER

Solar energy is being harnessed for crop and grain-drying by a British-based company which specialises in new farm systems. A special lightweight solar panel is used, which is roof-mounted and connected by ducting to the intake of the existing ventilator fan. The heat produced is circulated by the same air that is used to dry the crop. The system works entirely without water.

For maximum benefit a 5-6 degrees C rise over ambient is recommended, and this can be achieved even on dull days. The unit can be regulated by mixing ambient air to maintain the required temperature.

The area of collector panel required is matched to the existing ventilating fan. For example, a store that requires a 30 kW fan will need approximately 100 sq m of collector. However, variations can be made to suit individual situations, and temperatures up to 30 degrees C above ambient are achievable.

(MMG Agrisystems, The Production Centre, Docking, King's Lynn, Norfolk, England PE31 8LY.)

Reprinted from *British Agricultural News*, British Consulate-General, Gold Fields House, Sydney Cove, Sydney 2000.

QUEENSLAND HORSE REFUGE

by Chris Lawrence, Maleny, Qld.

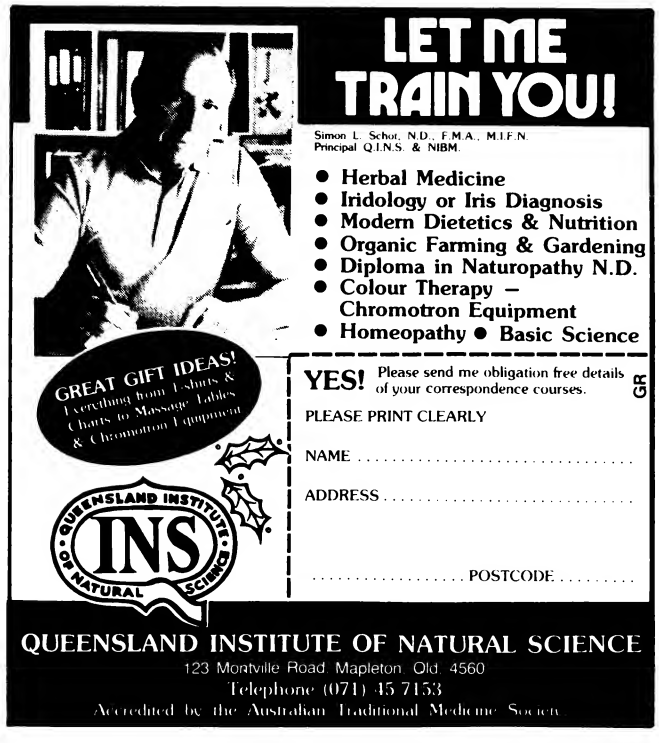
The Queensland Horse Refuge is now 5 months old, and although the work is still in the early stages we hope to set up a permanent home for abused and unwanted horses. The long term plan is to find foster homes for the horses. We are also setting up a long-term education programme into the care and management of horses in general.

The idea for the refuge grew after 18 months voluntary work for another animal welfare group investigating cruelty complaints. We were amazed at the huge numbers of neglected and unwanted horses we found. Many are left to fend for themselves and some even turned out onto the streets. Already we have 12 horses in our care, some of which are recuperating from extreme cruelty and have been under veterinary care. When fit they are offered to foster homes for a donation. They can only be leased and are not for sale. The youngest horse is 18 months old and and oldest is about 20 years old. The horses in our refuge range from ex-racehorses to Arabs with breeding papers.

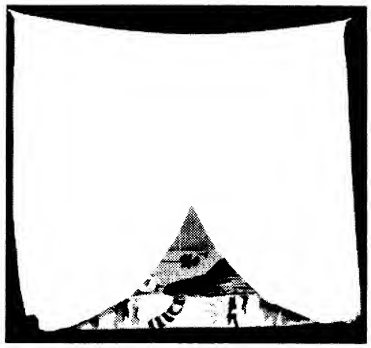
We acquire our horses either as the result of a cruelty complaint, (where we may be able to convince a delinquent owner that he is far better off without his horse) or they may be offered to us by frustrated owners, who have tried to sell them. The horses that need most care are fed daily with chaff, grain and vitamins etc. until they can cope with grazing. All our horses are wormed at 6 week intervals.

News of the refuge is spreading and our work load has increased, therefore we have had to register as a charity in order to raise funds. Like most fledgling groups we desperately need help, funds and workers. We are presently looking for permanent land for the refuge. We would love to meet others who are interested in horse welfare and have something positive to contribute.

Chris and Wayne can be contacted on 071-942-069.



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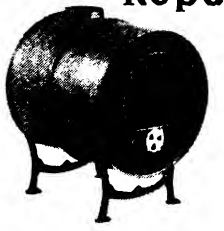
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CHRISTMAS PRESENTS FROM YOUR GARDEN



- Plant a little clump of chives or spring onions into some soil in a small pot or plastic bag (there must be holes at the bottom for drainage).
- Place a variety of home dried vegetables in little bottles or jars (very clean and dry), decorated to look pretty.
- Miniature citrus tree — cut a small piece from the top of an orange, remove the pulp and replace it with good soil. Plant an orange pip or a lemon pip (just out of fruit — not dry) in the soil-filled orange shell and watch it grow into a tiny tree. The pips take several weeks to germinate, so keep the soil slightly moist (not wet) while waiting for the first shoots to appear — the soil must never dry out. The recipient of this delightful present must be given instructions about how to look after it: explain that as the roots grow through the orange skin they must be cut off — this reduces the tree to a miniature, what the Japanese call bonsai. After about 6 years, tiny oranges will be produced. It really is worth keeping and caring for this miniature tree. It should be given a little plant food once a year.
- Root top garden — take a large plate or any shallow container and cover the surface with a little water. Into this water place five or six tops from vegetables such as carrots, turnips, or beetroot — the leaves should be trimmed off leaving about 1 cm (½ in) of the stem attached to 1 cm (½ in) of vegetable. Fill the gaps between root tops with some clean little stones. Put the plate onto a sunny window sill and in a few days you will see the tiny shoots starting to grow. This root top garden must never become dry. In two or three weeks there is a lovely leafy garden, good to look at and good for eating — the leaves are rich in minerals and vitamins and should go into soups and stews (don't pick the tiny centre leaves — leave them to continue growing).
- Into an envelope or a cone (made by twisting a small triangle of paper into a shape like an icecream cone, secured with glue or a pin), put some seeds which you have collected from the garden. Attach a card giving names of the seeds and directions for growing them.
- Sweet potato creeper — put a sweet potato which has developed some 'eyes' into a container with holes at the bottom. Cover the sweet potato with soil, and soon it will produce a green and leafy vine which is very decorative.

Reprinted from the newsletter of the Organic Growers' Association of NSW, September 1984, PO Box 2, Bringelly 2171.

UNUSUAL GARDEN TIES

Old pantihose are excellent ties for beans and tomatoes as they don't damage the plants.

ADOPTION UPDATE

The National Adoption Contact Register was featured in GR 66 p. 66. They contacted *Grass Roots* recently to explain that due to the increasing need for their services, phone calls from interested people were taking up all their time and they could not spend any time on research. They welcome any communications by post and will endeavour to reply as soon as possible. They can be contacted at PO Box 326, Maleny 4552. Please remember to send an SAE.

Down home on the farm...

by David Miller



Housing has never been one of our priorities. When Megg and I first married we lived in a small flat opposite the Victoria Market in North Melbourne. And to our friends' surprise and delight, the place evolved into a workshop: there were woven wallhangings on the walls, leather belt blanks ready to be made up, and the creative products of Megg's dressmaking and needlework skills all over the place. Our abodes have been workshops ever since, full of the interests and activities of the moment, and we have never really worried about the condition of the house or the period of its architecture.

Inevitably the time came when we wanted to have 'a place of our own'. I first remember discussing the question of suitable housing with Megg about 14 years ago, then we decided to defer the subject and press on with publishing *Grass Roots* instead. After that, nothing much was said, we signed up for a few acres, and slowly the idea of living on the farm in our own mudbrick home seemed to become a silent part of our culture, an unquestioned step in our development.

Concrete suggestions about design started to surface a few years later. What was the ideal house site? Should it be close to water? Elevated to catch the view? Snuggled into the protective side of a valley? How far from the road? We just could not decide, it all seemed so complex and we realised we knew so little. Obviously we needed professional assistance.

I spoke to a friend who knew what was happening on the owner-builder scene. Yes, we really should get on with our own house. How could we publish *Grass Roots* and not live in an owner-built home? It would change our lives, be a great example, living culture. 'But we need help,' I said. Someone suggested they could conduct an owner-builder workshop on the farm and get the students to build us a place in two weeks. 'No! No!' we protested, 'We just want to discuss ideas, draw up a tentative plan.' 'Go and talk to Mick,' they said, 'He's the best guy for owner-builder design and plans around, and so easy to talk to.'

So we met Mick. And he was good, though he just wasn't prepared for the culture shock. 'You use a computer to produce *Grass Roots*?' he gasped. He was fazed by our extreme work habits — like sticking to the job until it was completed. I reminded him that if you were unloading beehives in the middle of the night, you didn't stop for a sleep and continue at nine o'clock sharp next morning, but the whole exercise was against his beliefs. It was uncool, but he would help. The solution came in the mail a week later.

We pored over the new plan. It was a beautiful house, restful, relaxed, open and free. One of the focal points was the bathroom. Here, it was explained, someone could take a leisurely bath while gazing out into a private garden or fernery. Here, Megg might relax. We gasped. Megg has never been known to stay in a bath or shower for very long. In fact, the standard joke is that she never needs to dry herself because the water hasn't had enough time to touch her as she 'passes through.' Just time enough to rearrange her list of jobs!

We wondered where we had gone wrong, shelved the whole project and went back to work. Ideas were discussed over the next year or so, but we still needed help. We decided we needed someone more conservative, so seeing a house we liked in a magazine, we contacted the designers and discussed our needs. They were happy to take the day off, visit us and see the farm. We had a pleasant lunch with them in the local town, visited our office so they could see how we worked and lived, and then to the farm. We walked all around, chose a site, and they returned to the city to work up a design, or so we thought. We never heard from them again.

'The time is not right.' said Megg. 'She always says that.' I thought, and we worked on.

It has taken us years of part-time pondering to realise why this project has never jelled. I have drawn up all sorts of plans, tried to initiate discussion on them so we could come to some conclusions and get something going, to no avail. Then I visited some friends who had just moved into their mudbrick home. It was warm, cosy, functional and beautiful. I marvelled at the amount of work that had been done, and how Dad and various cousins had helped. It was not a large house, they had their own business, the house wasn't finished, there was still lots to do inside — the windows had to be double-glazed, the verandah needed work, then there was the paving, the drive, and the garage. I struggled to accept the enormity of the task. Where would I find the time, or the helpful cousins, and what about all the money for the new kitchen, bathroom and laundry? I looked again and the dream faded. 'It costs more to set up the inside than to just build the place, you know,' Megg said. The enthusiasm for a new house disappeared; we were already living the way we wanted, with the projects we loved. I realised why we had never even achieved a plan — the house has never been important.

We now search the 'Houses for Removal' column in the paper each Saturday. They are instant, inexpensive and usually better than anything we have lived in to date. The only use we will have for mudbrick is for bushfire-proofing. But how are we going to find the ideal house? Megg wants an office for herself, where she can display her turkey photos and show ribbons. Sunshine wants a bedroom and an extra room for all her special books and keepsakes. And for myself? Another office, a separate kitchen, somewhere pleasant to introduce visitors to the joys of cattle breeding? Now we can look forward to family evenings by the fire, trying to find the ideal house from the latest newspaper list. I wonder if we will ever agree.

Recent Releases

This page is to become a regular feature of the magazine, where we will present information about newly published books that we feel will interest readers. Included will be details of prices and publishers, so that you'll then be able to go to your local bookshop and order any of the books mentioned here. We will no longer be distributing books for other publishers so if you're interested in buying any of the books described here, please order them through your nearest bookstore.

HERBS IN AUSTRALIAN GARDENS — Kim Fletcher.

This should appeal to anyone who is interested in herbs, gardening or cooking. From her years of experience in studying, growing and using herbs, the author gives a wealth of practical information on planning your herb garden, what to plant and where, how to ensure a healthy and productive plot, and how to make best use of herbs in the garden and home. The book includes a helpful reference section containing sources of supply, herb gardens to visit, courses in herbal medicine and useful books.

P/b, 104 pp, Aust, McPhee Gribble/Penguin, RRP $9.95.

UNDERSTANDING HORSES — Garda Langley.

Rather than concentrate, as other horse books do, on the physical aspects of equine care, this one gives much greater emphasis to the psychological and emotional needs of these beautiful and sensitive animals. It stresses the importance of understanding these needs so that you can develop an enduring and happy relationship with the horse of your choice, having taken into account your own needs and expectations as well as those of your animal friend. The book is illustrated with black and white photographs which show just how much emotion horses can express. Valuable for anyone who keeps horses — or wants to.

P/b, 258 pp, Aust, Greenhouse, RRP $16.95.

DOING UP A DUMP — Barty Phillips.

Although written for English conditions this book contains a good deal of useful advice for anyone trying to make the best of uninspiring surroundings. It covers everything from finding the money to completing the effect with indoor plants. There is helpful information on dealing with problems such as dampness, darkness or difficult spaces, and hints on choosing the right colours, furniture and arrangements of your favourite objects to create the atmosphere you want. The list of suppliers is confined to British ones and therefore unhelpful, and some situations (e.g. attics, basements and landings) are not relevant to Australian conditions, but most of the information seems quite useful. There are plenty of before and after photographs to inspire your creative flair in doing up your 'dump'.

P/b, 128 pp, UK, Macdonald Orbis. Distributed by Macmillan, RRP $17.95.

AUSTRALIAN LEADLIGHT DESIGNS — Jillian Sawyer.

As the author points out, leadlighting is becoming increasingly popular in Australia but there is a lack of designs relating to our unique heritage and landscape. This book is an attempt to remedy that, presenting examples of the colour and variety of Australian flora and fauna. Designs range from simple to complex, so should appeal to both beginners and more experienced craftspeople, and many are photographed in colour so that you can see the end result of your efforts. Relatively inexpensive and a useful reference to inspire you to create your own leadlight art.

P/b, 32 pp, Aust, Kangaroo Press, RRP $7.95.

PETS AS PALS — Dr Peter Higgins.

Subtitled *How to look after your pet*, this book has a cover that is sure to catch the attention of any child interested in animals. The information on selecting a suitable pet and taking proper care of it is presented in a lively and entertaining way, with cartoon-type illustrations of the main points. As well as the usual household pets, the book discusses more out-of-the-ordinary ones such as snakes, spiders and even zoo pets, although it neglects poultry, surprisingly. There is a section on care of sick pets and coping with the death of a favourite companion. One drawback is that the book relies too heavily on information from commercial sources when discussing diet and health care.

P/b, 128 pp, Aust, Simon & Schuster, RRP $12.95.

POT POURRI AND OTHER SCENTED DELIGHTS — Reginald Peplow.

This is a delightful little book, beautifully illustrated and containing a mixture of ancient herbal lore and modern methods of growing and using herbs. There are recipes for using herbal products in scented delights, personal beauty care, gifts — not forgetting a variety of wonderful ways of making potpourri. All this is combined with a sprinkling of handy hints and herbal wisdom from down the ages. Compiled through the British National Trust, most of the information should be relevant to Australian conditions.

H/b, 85 pp, UK, Unwin Hyman. Distributed by Allen & Unwin, RRP $12.95.

EAGLE — Michael Hyde.

A story for older children, it is told in a racy style that should appeal to this age group. Kim discovers an eagle that has made its home in the centre of the city. Though she is enthralled by its power and untamed ways, others in the area see the eagle as a menace and threaten to destroy it. Kim's efforts to protect her new friend, aided by Con and eccentric old Elsie, force her to confront her own ideas and feelings as well as pitting her wits against those who want to kill Charlie. Based on actual events, the story is a moving one — it does not have a conventional happy ending.

P/b, 64 pp, Aust, Pascoe Publishing. Distributed by Kingfisher Books, RRP $6.95.

THE SALAD GARDEN — Cheryl Maddocks.

This is the kind of book that makes you want to rush out and plant something immediately! The instructions for preparing your garden and growing vegetables organically are so clear and (dare I say it?) down to earth, the illustrations of garden produce are so green and luscious looking, the recipes sound so delectable that you just know that it will all turn out beautifully, even if you have two left thumbs and no green ones! The author describes a wide variety of unusual as well as more common salad vegetables, with details of how to grow them and recipes for making best use of all your fresh produce. Lovely!

P/b, 160 pp, Aust, Doubleday/Transworld, RRP $24.95.

THE AUSTRALIAN NATURAL FOOD COOKBOOK — Jacqueline Parkhurst.

Beginning with advice on how to improve your diet, this book aims to provide interesting and varied meals for those considering making the change to vegetarianism. There are recipes for soups and appetisers, main meals, salads, pasta, desserts and many other dishes. The food sounds very appetising and most of the recipes are fairly simple to prepare, though some rely too heavily on cooked or packaged foods. Many health conscious people would also prefer less sugar, salt and fats (e.g. cream) in their diet. The intention is good, but I feel the title is a little misleading in its emphasis on natural food and in not mentioning the vegetarian content.

P/b, 212 pp, Aust, Sun Books. Distributed by Macmillan, RRP $9.95.

SALT OF THE EARTH — Marjorie Johnston.

These stories of families struggling to survive on the land make fascinating reading, as they span many generations of rural life and provide insight into the future of farming as well as the past. Marjorie Johnston has spoken to farmers all over Australia and allowed them to tell in their own words what it's like to try and make a living on the land. Some are hopeful, some despairing, their farms may be large or small, but they all share a love of the land and a deep concern for the future of farming in Australia.

P/b, 165 pp, Aust, Collins Dove, RRP $12.95.

ROUND THE MARKET PLACE

We hope you enjoy this feature introducing new products relevant to readers' lifestyles and interests.

SOLAR POWER MODULES

One of Australia's leading solar electric companies has released a new range of solar modules designed to significantly reduce the cost of solar installations. The range provides power outputs up to thirty percent higher than previously available. BP Solar's Suntamer range features three new modules designed and manufactured in Australia to meet a growing demand for solar electric systems. Modules with outputs of 44, 52 and 58 watts provide greater flexibility and cost effectiveness for a wide range of solar power applications. The Suntamer 58 watt module provides the highest power output available in solar modules in Australia. Solar power users could now specify fewer units to meet their specific requirements, according to BP Solar commercial director.

The Suntamer range has been developed from BP Solar's range of professional systems used extensively in remote mining and communications installations in harsh outback environments. Seven hundred of BP Solar's highest output modules are already supplied to a major mining operation in outback South Australia. The Suntamer range comes with a ten-year warranty and is suitable for a wide range of applications such as remote area power systems, water pumping, battery charging and communications. The range has been designed to meet all major international standards.

The BP Solar Suntamer range is available around Australia through BP Solar's 105 distributors who are trained to offer advice on the module specification, system design, application and installation that best suits local conditions.

BP Solar, PO Box 519, BROOKVALE 2100. Ph: 02-938-5111.

BIRD SCARER

A humming line designed to deter birds from gardens and boats is now available from Pains-Wessex. The 'Bird Scare' line is a monofilament polypropylene tape which is stretched between two points so that even a slight breeze will cause it to vibrate and emit an ultrasonic sound that drives birds away. Highly effective and easy to install, 'Bird Scare' can safely be used to protect vegetables, fruit trees and moored boats. The line is available in either 30 m (98 ft) or 500 m (1640 ft) reels through most garden supply shops.

Pains-Wessex, 467 Riversdale Rd, CAMBERWELL 3124.

TREEGUARD

The RTA treeguard is an economical, lightweight treeguard which provides effective protection from hares, rabbits and other vermin. Originally designed to protect plants in fenced rural plantations, it is also suitable for use in recreation and conservation parks, landscape projects, domestic gardens, school grounds, golf links and along roadsides. The guard comprises three 10 mm (½ in) wide by 750 mm (30 in) long green bamboo stakes around which is fitted a stretch-nylon mesh sleeve and the light weight and low volume of these materials have considerably reduced transportation and handling costs for large contract planting projects, as one person can easily carry 100 guards. The guard can be removed after the first year, however if left around the plant it begins to break down after 2-3 years. Alternatively the mesh can be left around the trunk of young plants for prolonged protection after the bamboos are removed. Available in bulk from the manufacturer or in small quantities through retail outlets.

Rural Trees Australia Pty Ltd, PO Box 10, BRANXHOLME 3302. Ph: 055-786-268.

ALLERGY FREE SOAPS

Hypoallergenic personal and household preparations are now available under the trade name *Caring*. They have been developed especially for people with skin sensitivities and are completely free of animal ingredients, lanolin, formaldehyde, added fragrances or artificial colourings. As well, they are 100 percent biodegradable and are not tested on animals. Products available include dishwashing liquid, laundry detergent,

Caring Products, 446 Victoria St, NTH MELBOURNE 3051.

DEEP TILLAGE PLOUGH

A NSW firm has released a three-toolbar rowcrop deep tillage plough that features bolt-on tool shanks for easy adjustment. Agrowplow's versatile five metre (16 ft) wide AP-3 can be set up for 30 cm (1 ft) or 1 metre (3 ft) spacings, making possible single-pass furrowing, tillage and hilling in cotton and other permanent bed crops. Working depth is variable from zero to 60 cm (2 ft) with ratchet or optional hydraulic adjustment. The plough may be run as a trailed unit or on a three-point linkage, can carry fertiliser and seed-boxes for greater flexibility of use, and has a range of optional extras.

Agroplow, 134 Thornton St, WELLINGTON 2820. Ph: 068-451-566.

AN ALTERNATIVE TRANSPORT FUEL

About 50 NSW motorists are presently involved in field tests of a device which enables gas customers to use natural gas to fuel vehicles at home. The device, known as a Home Refuelling Appliance (HRA), is a small compressor connected to a typical customer's household gas pipes and fills a gas cylinder situated in the car's boot, between the rear wheel arches. Gas is piped to the engine compartment where it is reduced in pressure through a regulator and injected into the engine through a special mixer. AGL Sydney Ltd is currently conducting an intensive five month trial of the HRA which will examine its operating performance — the largest of a number of similar tests being conducted worldwide.

Car conversion costs of approximately $1500 are more than covered by savings on the fuel bill. For example, a 60 litre (13 gal) gas cylinder contains approximately $3.90 worth of natural gas, while the same quantity of petrol would cost $9.00. Filling this size cylinder will take about 6 hours e.g. while garaged overnight. This new method of fuelling your car allows instant switch back to petrol at any time and makes natural gas a viable alternative for ordinary motorists as well as for commercial fleets.

AGL Centre, PO Box 944, NTH SYDNEY 2060. Ph: 02-922-0101.



Refuelling with natural gas from the Home Refuelling Appliance.

COMMERCIAL MOWER

The Austwood Commercial Mower is a cheap alternative for gardeners who cannot afford ride-on mowers, or who have sloped lawns. The cutting decks give a cut up to 1.5 m (60 in) which compares very well with small tractors and ride-on mowers, and at a fraction of the cost. The Austwood mower can mow 6 ha (15 ac) in 8 hours and can hold enough fuel to complete the job.

Austwood, 214 Wellington Rd, MULGRAVE 3170. Ph: 03-561-2666.

GRASSIFIEDS

PROPERTY FOR SALE

NEW SOUTH WALES

PORT MACQUARIE HINTERLAND, 100 acres virgin forest, perfect alternative retreat, part rainforest, permanent springs, abundant wildlife. 1½ hours from Port, 8.5 km from highway, school bus, no power, phone available. $25,000. Urgent sale, keen to negotiate. Phone Lisa 02-855-243 AH, 02-484-4335 BH.

NSW/QLD border. Coolangatta Tweed, thirty minutes drive. Shares available in magnificent property. Pasture, springs, rainforest, waterfalls. Prices up to $25,000. Some vendor terms available. Ph: 075-909-689.

NORTHERN NSW (near Tabulam) 528 acres. River frontage. Creeks. All weather access. Native forest. $42,000. Ph: 066-242-725.

KEMPSEY, 21½ acres secluded hilly bush, 25 km west of Kempsey, mostly fenced, phone, power avail. Rain and dam water, good house sites, good positions for dams, permission to build with no restrictions. 3 km to small town. $16,000 ONO. Ph: Roger 062-416-767.

TUMBARUMBA 295 ac $60,000: located about 8 km from the southern NSW town. Heavily timbered with some clear areas, springs, small dam and abundant wildlife. Panoramic views of the Snowy Mountains possible with some clearing. Ph: Ian 069-251-721.

MODERN 3B/R home — all mod cons., town water, phone, power, fuel stove, rainwater tank, sheds. Organic garden — natives, herbs, fruit and nut trees, grapes. 1.7 hectare block, well fenced 4 sections. Quiet river town, all facilities, plenty work available. $59,000. Ph: 069-684-331.

SALLYS FLAT (north of Bathurst), 12 ha, ideal small farm, fully fenced, watered, dams and creek, old hut and caravan, backed by mature pines, phone connected, electricity on land. $24,000 ONO. Ph: 045-721-472.

BURRAGATE, 35 km west of Merimbula, on SE coast of NSW. 27 acres on Towamba River, mostly a steep wooded gully, with 1 acre of fenced irrigated river flat, small-cropped organically. Pump, 5 hp rotovator, mower etc. included. Good homesite views, neighbours share access. $33,500. Write: Land, PO Box A534, SYDNEY SOUTH 2000.

NORTHERN NSW Nymboida, 179 acres secluded bushland, council approved timber, mudbrick, stone, split-level house, many features. Shed suitable for living, studio, chook shed, large enclosed vegetable garden, excellent water supply, dam, 6000 gal tank, 1000 gal rainwater tank, septic, great views, abundant wildlife. $78,000. Write to Irene Van Den Driesschen, RMB Martin Rd, NYMBOIDA 2460. Ph: 066-494-201.

NIMBIN — RURAL 5 acres, cabin, amenities, water, phone, no power. Creek with wildlife. Fruit trees. $42,000. Ph: 066-897-320/840-124.

OGUNBIL five acres, arable land, some large trees, partly fenced, quiet valley, good outlook, lovely countryside, phone and electricity and building permit available, mudbrick OK, half hour from Tamworth. $20,000 ONO. Write S Moss, Lot 19, Wallgrove Rd, HORSLEY PARK 2164. Ph: 02-620-1483. AH

NYMBOIDA 100 acres, 20 acres cleared, remainder steep timber covered hills, permanent creek, 2 B/R cabin, goat shed and pens, some fences, power and phone connected. $60,000. Ph: 066-494-260.

KEMPSEY — 25 acres on the Armidale Rd, 18 km from Kempsey, 9 km from Temagog. Parish of Burragong, on bus route, tar road frontage, high position, good house sites, views to mountains, some natural bush, rest cleared. Includes dam, fencing on 3 sides, power and telephone on site. Can be improved for grazing and gardens — good soil. Limited only to your imagination. Will consider all reasonable offers. $33,000. Ph: 02-790-2805.

SCHOOL BUS RUN with 110 acre, 2B/R, 2S/0 older style farm house, gas stove, fireplace, phone, septic, p/pump, beautiful creek with all the wildlife one dreams about, platypus, bush turkeys, bellbirds and others. Nissan Urvan bus needs 2 hrs day work, returns $10,000/year plus. Land carries 50 cows/calves. Scenic valley adjoining forest, 3 titles. NR area. $140,000. Ph: 066-655-163.

NYMBOIDA bush retreat, new 3B/R, B/V house to lock up on timbered 57 ha (140 acres) secluded panoramic views, large dam, 5000 gal tank. $49,000. Ph: 066-494-202.

TWEED VALLEY. Magnificent views, 3.5 ha, permanent creek, power, telephone available, school bus. $25,000. Ph: 03-386-0051.

NORTHERN NSW 100 acre blocks bounded by Clarence River and pretty gully. Picturesque bushland setting. Cleared/timbered areas, numerous swimming holes. All weather access, more families welcome as we wish to start our own school, but state school available. $23,000. Mike, PO Box 56, TABULAM 2470.

BORDER TOWN NSW/QLD ¼ acre, 17½ sq, 8 yr old, air cond., carpeted home. 3B/R, office and verandah, 3 sheds, horse stable, feed room, carport, lots of fruit trees, grape vines, garden. $58,000 neg. Ph: Charlie or Gwen 067-532-172.

GANMAIN 3 acres, 55 km to Wagga. Mud-brick cottage to lock-up stage, loft, concrete floor bathroom and laundry, one main room lined with cypress pine, town water and electricity connected. Dam, shed, fenced. $14,000 ONO. Ph: 043-326-272.

TABULAM AREA 1 hour west of Casino, 100 acres of undulating land and creek flats, 40 acres cleared, rest natural bushland. Permanent creek frontage plus natural springs. Good home sites, small hut on property. Has to be seen to be appreciated. $28,000. Write to R Barton, 20/14-16 Factory St, NTH PARRAMATTA 2151. Ph: 02-683-5550.

SAPOTE ORCHARD NYMBOIDA near Grafton, Coffs Harbour. 25 acres, timbered, river frontage, rainforest creek, excellent soil. 3 fenced acres irrigated, subtropical temperate fruit trees, vines, flowers, 100 Casimoroas, 200 mixed collection (some bearing), caravan, sheds, housesite, concrete tank. Idyllic life-style, canoeing, friendly community, 2WD access, school. Ph: 066-494-257/536-397.

NYMBOIDA, 100 acres peaceful native bush-land rainforest, white water river frontage, 2WD access, phone, 5 acres cleared, housesite, soil pH 6.1/6.5. $52,000. Ph: Maureen 066-542-108 or Alan 02-773-4797.

MID NORTH COAST, 97 acres (Hastings Valley), bush block, some rainforest, fully fenced. 4B/R house, combustion stove, hot water, phone, 2000 watt invertor power system. Septic, large workshop, pig, chook pens, house cow, perm. water, close school buses. $112,000. Ph: 065-874-332.

SIX BLOCKS each approx 100 acres, undulating timbered, wildlife, house sites can be cleared. 12-13 miles north of Glen Innes, road into properties. C/- J. Donaldson, 264 Grey St, GLEN INNES 2370. Ph: 067-323-095/323-294.

I HAVE A 3B/R cement block house for sale. It would be ideal for growing vegies, herbs etc. Well established garden with fruit trees. The house is fully carpeted, newly painted, telephone, water, septic connected. Two sheds, plenty rainwater, close to school, PO, 35 km from Lake Cargelligo. Ring Naradhan 19, or write L Pratt, Oak St, NARADHAN 2669.

NEAR NOWRA, 22 acres with 20 sq, 4B/R brick house, 4 years old, stables, dairy, sheds etc., tanks and permanent pump to creek for gardens, dam. Wandandian. $145,000. Ph: 044-434-991, 434-245.

QUEENSLAND

HYDROPONIC FARMING, 45 established hydroponic gravel beds, with computerised feed, 22,000 lt nutrient tank. Presently growing lettuce, parsley, tomatoes and flowers. Old Qld home with character on 3½ acres. 40 minutes north of Mackay, 10 mins to nearest PO and shops, schoolbus stop in front, 4 B/R, highset fully screened, B/Rs A/C, W/W carpets, ceiling fans, solar tinted windows, new wiring, renovated inside and out, concreted under, half enclosed with office and lockup garage. Two rainwater tanks and well, 6 x 3 m shed with leanto carport, 3 x 3 m gardenshed with kennel and fowlrun. Well established fruit trees and BBQ area. Creek with permanent waterhole, bitumen road in front. Quiet area in sugar growing district, 6 miles from sea. $118,000. Ph: 079-587-783.

LAIDLEY, unique setup to live the good life on 10 acres. Organic orchard supplements income. Solid H/set spacious home delights with 4 B/R, second bathroom, openplan living, wide verandah, heater, wool carpets and solar HWS. Really close to township with all amenities. This top property has playgrounds, gardens, dams, irrigation, horse paddocks, power and phone. Shelterbelt of bush to scenic rim of national parks, views. A must for inspection at bargain price $108,000. Ph: 075-651-871.

TIMBER HOME, solid hi-set 3B/R and very large sunroom on a small block, 2 miles to Childers, 35 miles to Bundaberg. Beaut views of canefield country — quiet relaxing. $27,500. PO Box 225, CHILDERS 4660. Ph: 071-261-624 Mon-Fri — from 4 a.m.-11 p.m.

670 AC FREEHOLD. Owner selling out due to accident. Pawpaw trees, some stock, pigs, horses, temp dwelling, some furniture, kero freezer, light machinery, $15,000. Millable timber, 2 dams, underground water. $147 per acre neg. Write L Harley, C/- PO, CALLIOPE 4680.

DEADLINES: GR 70 - OCTOBER 31ST
GR 71 - DECEMBER 30TH

GRASSIFIEDS

PROPERTY FOR SALE

QUEENSLAND

NANANGO SE QLD CABIN. 30 acres. Solar power, septic, laundry, tanks. Some furniture. Approx 1000 split face concrete blocks. Chooks, established vegetables, fruit nut trees, partly fenced. Wood stove, kero fridge, gently sloping rectangular block. Shaded creek adjoins state forest, wildlife abounds, like minded neighbours, school bus at gate, natural bushland. 4 dams, elevated north easterly position. Private sale. Owner relocating, must sell. $45,000. Ph: 071-631-558.

20 ACRES in coastal village, 110 kms south of Mackay. 3 B/R comfortable home, septic, elec, phone, solar hot water, dam, creek, rainwater. Large shed, chook run, fenced permacultured garden with many bearing tropical fruit trees, plus 100 organic Bowen mango trees — 50 bearing. 10 acres ready for more fruit trees. An established fruitstall/foodstop specialising in organic produce and eats 3 kms away on Bruce H'way. Opposite one-teacher school, store. Pleasant environment close to mountains and sea. $55,000. Ph: 079-391-064.

SUNSHINE COAST HINTERLAND 1¾ acres gently sloping fertile land with permanent spring fed dam. 5 mins to Maleny, 35 km from Caloundra. Maleny has education facilities to year 12, numerous sporting facilities and public hospital, plus four private doctors. Great place to raise children or retire. No drought worries. $24,000 neg. Ph: 071-720-878.

QUEENSLANDER ON 25 forested acres, 350 bearing sub-tropical fruits, mangoes, lychees, pawpaws etc. Large dams, frost-free northeast slopes, pump, underground irrigation, nursery, vegies and herbs. 3 sheds, power, phone, combustion stove, bitumen road, exotic wildlife — king parrots, koalas, black cockatoos. $70,000. G Hughes, 18 Crown Rd, GYMPIE 4570.

RESIDENTIAL BLOCK in small country town. $4000 ONO. All enquiries contact 85 Grevillea St, BILOELA 4715.

20 PEACEFUL ACRES. Comfortable 2 BR home, council approved. Potbelly, wood stove, HWS. Selectively cleared, partly sown to pasture. Quality fencing, sheds and yards. Irrigated fodder trees, gravity feed to garden, 2 dams. Dozer, tractor and implements $39,700. Phone owner 076-951-144 BH. PO Box 118, MILLMERRAN 4357.

LAMB ISLAND, attractive, comfortable 2B/R cottage, huge open living area, well furnished, power, phone, water. Idyllic island in Morton Bay, 50 minutes to Brisbane. $35,000. Phone 075-495-061 or visit 130 Leonie Cres., LAMB ISLAND 4165.

GYMPIE 57 ACRES freehold hilly bushland, small A-frame house, state forest 3 sides. Phone, solar power, concrete tank, wood stove, hot water, permanent dam. 11 km south of Gympie. $65,000. Ph: 02-699-4249.

POLE FRAME HOUSE in forest setting on 43 acres, power, phone, slow-combustion stove, HW, 5000 gal water tank, septic, fully fenced, creek, dams, shed, electric pumps, irrigated gardens, orchard, greenhouses (260 sq m). 15 mins from Gympie towards Tin Can Bay. $130,000. Ph: 071-833-797.

33.8 ACRES MT FOX area FN Qld, 69 km west of Ingham on top of the Range. Bitumen road up the Range, power and phone available. Undulating valley, open woodland with undergrowth in places. Rainforest area along the creek, small spring also on property. Small school at Mt Fox, shops at bottom of Range. $45,000. Write John Bowen, C/- PO, YUNGABURRA 4872. Ph: 070-953-179.

MT PERRY QLD, west of Bundaberg. 100 acres, majority very fertile unpolluted rainforest soil. 10 acres flat — rest undulating to steep, magnificent views. 5 km from school, hospital etc. Phone Greg Knight 071-774-139.

32 ACRES Toogoolawah, Brisbane Valley, small caravan, phone, electricity (no guarantee), large dam, excellent boundary fencing, hay sheds, stables, poultry and pig pens, horse stud and small nursery business, orchard, plenty of room for expansion. Apples, macadamia, almond, peaches, apricots, citrus, mangoes etc. Have planted extensively with trees and shrubs, well grown for shade and shelter to encourage birdlife. Established gardens, no chemicals, used all organic, handy to town, high school just around corner. 1½ hrs to Brisbane, Caloundra, Toowoomba. $65,000. Ph: 075-831-108 AH.

GOOMBURRA VALLEY, 36 acres, 2 hours west of Brisbane, bitumen road. Power, phone, school bus available, dam and some fencing. Owners need to sell urgently. $15,500. Ph: 076-355-084.

MACLEAY ISLAND, good high dry block, close primary school, shop, jetty, electricity, phone past door. $13,000. Apply Kathy, PO Box 30, CLEVELAND 4163.

5 ACRES new 3 B/R brick home, tiled/carpet, power, dam, school bus, timber, part cleared, good soil, 15 mins Gympie, work in area, rates $83 pa. $58,000. Ph:071-831-314.

SARINA AREA, rural home on fully landscaped 1 acre, 4 yo 5B/R, separate lounge, modern open plan kitchen, family room, 35' x 45' steel frame shed. Tennis court with lights, 4 km to beach, boatramp, good fishing, 2 mins primary school, high school bus. $95,000 ONO. Ph: 079-502-190.

PROSTON NEAR KINGAROY, 100 acres f/hold. Lots of timber, secluded valley, dam, good house sites. Phone nearby, school bus, craft markets, community minded grass roots area. $25,000. Ph: 075-330-380.

2B/R COTTAGE ¼ acre quiet rural mountain area. $33,000 or exchange isolated land north NSW. Ph: 079-381-233.

ST LAWRENCE, Central Qld. Double storey queenslander home on ½ acre. 3 B/R, sleepout, front verandahs, combustion stove, ceiling fans, lock-up garage, double shed. School, PO, stores, pub, railway. Fronts tidal river, abundant fishing, crabbing. $32,000. Owners Ph: 079-562-542.

LOOKING FOR your place in the sun? We would like 2 families to share 80 acres with us. Good climate, soil, river frontage, natural bush. Ideal small crops, orchids, close railway, school bus. Consider lease with option to buy share. For more info write B & P, PO Box 954, ATHERTON 4883.

80 ACRES NEAR Toowoomba Qld, good soil, trees, koalas, wallabies, dam. $37,000. Melody, 4 Martyn Cl, CHISHOLM 2905. Ph: 062-757-698.

75 KM BUNDABERG, level 40 acres, dam, mudbrick, handy beach, school, shop. $28,000. Ph: 07-818-1184.

MINDEN 15 mins Ipswich. 12 acres lovely sloping hill, approx 3 acres cleared flat ground. Cleared house site, dam, 14' x 11' shed, some established fruit and native trees, scenic views. $35,000 or realistic offer. Ph: 07-349-2243.

SE QLD 30 km Millmerran, 250 acres bush block, cypress pine, small dam and clearing. No other improvements. $35,000 ONO. Ph: 066-797-177 AH.

$30,000 TIMBERED VIRGIN 40 acres, river boundary s/east Qld, 40' x 45' shed, 3 areas, tank, phone, electricity available, school bus, mail delivered. Ph: 071-646-229.

TWO ACRES, Logan home, lock up, 3B/R, phone, electricity available. Between Gympie, Maryborough. Ring evenings 071-857-120.

VICTORIA

RYE OCEAN BEACH mudbrick and cedar, split level, 2B/R bush retreat on 1 acre, great views. Ph: 059-841-617, AH 843-564.

300 ACRES, organic grazing, cropping, hay. Assured water, organic orchard, vines, vegie garden, native trees. Buses to all school levels, 25 sq solid brick home, built for family with chemical allergies — all natural materials, no chemicals or synthetics in construction. Big fernery, big lock-up shed, stock yards. $220,000. B Crumpler, RSD TENNYSON 3572. Ph: 054-882-350.

30 MINS BAIRNSDALE, 150 acres hobby farm, 8 acres 12 ft high fenced wildlife area with 9 dams for fish and breeding birds, lots of aviaries, large shed for living, generator, potbelly, slow combustion stove, perm creek 70% cleared, natural bush, creek flat and hills, quiet. 15 mins amenities. $120,000. T Bristow, RMB 2212, VIA STRATFORD 3862.

SCARSDALE 1¼ acres, two titles, 3B/R W/B house, workshop/bungalow, numerous other sheds, also plant nursery w/hothouse igloo and shade igloo carrying large range herb plants, cottage plants, ground covers and natives, situated main street country town, 24 km west Ballarat, beside busy Glenelg Highway, potential unlimited. $65,500 plus SAV. Ph: 053-428-742.

BALLARAT — comfortably renov. 2B/R miners cottage on 1 acre. SEC, gas hot water, Maxiheat log heater, herb garden, estab. vegie gardens, chook and goat pens, fruit trees, rural views, GR type neighbours. Near schools, public transport, ideal 1st step towards alternative lifestyle. Subdivision possible. Private sale. $58,500. Ph: 053-322-197.

BUNINYONG near Ballarat. Architect designed mudbrick house. 1¼ acres with power, 3B/R, loft, views, stained glass windows, slate, carpet, handcrafted staircase, wildlife etc. Plus 5 square studio, 5 min Buninyong, 15 min Ballarat, 1 hr Melb., suit self-sufficiency. $119,000. Ph: 053-413-928. PO Box 437, BUNINYONG 3357.

CHARMING 1860 W/B 'School Cottage' in historic Maldon, complete with cottage garden. Past 2½ years has operated as bed and breakfast/gallery business with excellent returns. Section 52 available. Fully furnished with all business necessities for operation — walk in walk out. $95,000. Ph: 054-752-356.

GRASSIFIEDS

PROPERTY FOR SALE

VICTORIA

HOME AND INCOME, 3B/R home plus large 2 roomed old settlers cottage. Greenhouse, large shed, 5 chestnut trees, also many other fruit trees. 2½ ac picturesque park with permanent mountain stream, got to be seen. Been used as health retreat, but suitable for other purposes. Just over 1 hour drive east of Melbourne. Present owner like to retire. Price $150,000 neg. Ring and call for inspection. 059-667-296.

CASTLEMAINE AREA 7 acres timbered land, cleared level housesite, magnificent views, small dam, good access, 15 mins. to Castlemaine. $15,000. 7 Holloway St, NEWPORT 3015. Ph: 03-391-5951.

GENUINE LOG CABIN, 2B/R plus s/c granny flat. Solar power, s/c heater, LPG stove and HWS, 5¼ acres, fenced two paddocks, 10 minutes Daylesford. Machinery sheds and workshop. Built four years, established garden. $65,000 ONO. Ph: 053-482-728.

TASMANIA

COTTAGE, SHEDS and yards on 11 acres, 30 mins from Hobart. Land includes alluvial pasture and timbered hillside, well suited to berry fruit production and goat farming and watered by permanent stream. Cottage has power, septic and piped spring water, and school bus passes to Huonville. $46,000. Ph: 002-663-111.

CASTLE FORBES BAY farmlet. 3B/R home on 2½ acres of good pasture, well fenced, with sheds and yards. House has town water, all conveniences, great views of Huon River, quality floor coverings, wood heater, open fire and games room. $62,000. Ph: 002-971-364.

BUSH BLOCK, 97 acres, plenty of firewood and good regrowth timber, good views. Near Hobart. $30,000. Ph: 002-663-111.

JACKEY'S MARSH (Tas) 27 acres, 4 cleared, balance bush of lush land, 20 minutes from Deloraine. Concrete foundations for cottage complete, bush shed, phone, bus close, 3 dams, permanent creek with trout, incredible views of Western Tiers and Quamby Bluff. Friendly and supportive community. $26,000 ONO. Ph: Vince 03-232-1091.

STORMLEA TASMAN PENINSULA 67 acres, 3 creeks, 2 valleys, 2 titles, N/E aspect, hilly blackwoods gum forest, rainforest regrowth, pasture, hothouse, garden, F/N trees, 1 BR lge (farm) cottage, new wiring, fireplace (SC) stove, potbelly stove, baltic blackwood interior plus secluded shack, outbuildings, GR neighbours, coastal wilderness, 5 miles school, shops, beaches. $57,000. R Baker, RSD 1132, STORMLEA 7184. Ph: 002-535-120.

LORINNA — 25 acres in beautiful bush mountain/valley setting with hand crafted timber home. 3 bedrooms, cosy wood heating, cooking, needs finishing and loving. $40,000. Also 25 acres with shed $18,500. Ph: 066-558-538.

LORINNA, beautiful secluded valley NW Tassie. 20 acres adjoining lake, 7 cleared. Small sturdy shack, wood stove, hot water, house tank and 5000 gal storage tank. Local community co-op, nearby Buddhist farm. Joins state forest. Sell with regret. $20,000. Ph: 03-417-7473.

QUALITY LIFESTYLE — 10 acre farmlet, 40 mins from Launceston, 10 mins from Scottsdale, main road frontage, all pasture. 50 fruit trees include apples, pears, peaches, plums, quince, apricot, cherry, chestnuts etc. 2 wells and permanent water, dam, good horticultural quality land, suit strawberries, herbs, cut flowers etc. Cottage has 2 large plus 2 small bedrooms. New Raeburn combustion stove, plus Kent fire in lounge. Cows, sheep, hens, ducks, geese included to kind buyer. School bus at door. $72,000, no offers considered. Ph: 003-528-152.

CYGNET TASMANIA 11 acre farm, bush pasture, dam, pump, sheds, 3B/R house, two wood stoves, power, 6000 gallon tanks, donkeys, gardens. Private but not isolated, beautiful views, close to beaches, township. $48,000. Send phone no. to G White, 165 Powderworks Rd, ELANORA HEIGHTS 2101 and I will contact you.

WEST AUSTRALIA

TORBAY HILL, 12 acres between Albany and Denmark. 2B/R passive solar design house, double garage, 12,000 gal rainwater tank, dam, adjacent national park, beaches and school, wind powered electricity operating all appliances including fridge and hot water. Mains connection available. Stunning views. $89,000. Write RMB 9328, TORBAY HILL 6330. Ph: 098-451-086.

NEW ZEALAND

PORT WAIKATO 2B/R cottage, new building (fibro), large block. Across road from safe swimming beach. Extensive garden, excellent soil, established fruit trees. 1¼ hours to Auckland, population 180. Situated on river mouth in rural setting, perpetual lease at $62 pa, owner now residing in Australia. Sell $NZ28,000 or swap for small property in Australia. Please write: D Horton, C/- PO, COWARAMUP 6284.

10 ACRES good arable river flats on West Coast NZ. Bound by Nile River on south, creek on east and native bush escarpment on north. In walking distance of lagoon, beaches, good fishing. Easy road access. Fences and electricity. Successful craft co-op in area taps tourist trade. Good climate, beautiful setting. $21,000 ONO. Write Peter Holmewood, 95 Aro St, WELLINGTON NZ.

PROPERTY WANTED

5-10 ACRES BUSH Healesville Vic area. North aspect, good access. Contact Clark, 74 Lee Ann Cres, CROYDON 3136. Ph: 03-726-9827.

TEN OR MORE acres in Lismore area with or without dwelling, permanent water, some usable land with bush wanted by young GR couple. C/- 95 Thompson Rd, PANANIA 2213. Contact Jenny BH Ph: 02-290-9362, AH Jenny or Pat Ph: 02-773-4825.

VICTORIA, MOUNTAINOUS with creek, forest outlook, SEC connection not prohibitive, farming quality irrelevant, either Australian bush house or none. About 100 acres preferably. Ring 03-258-398 with location, price.

ACREAGE with humble dwelling. Land must have natural beauty. Reply to 6 Laverock Rd, WARRNAMBOOL 3280.

ACREAGE WANTED pref NSW undulating to steep forested with some rainforest or similar. Must have perm water. 4WD access only OK, power, phone not necessary. Contact Dennis or Robyn, 31 Rosemount Dr, RAYMOND TCE 2324. Ph: 049-874-587.

ACRES NEAR NAROOMA trees, permanent water, with or without dwelling. Ph: 049-648-176.

BUSINESS FOR SALE

AUCKLAND NEW ZEALAND — well established centre. Therapies including osteopathy, naturopathy, homoeopathy, acupuncture etc. A warm professional atmosphere set in attractive gardens. Price includes premises and practice. Bruce Harper, 40 Titirangi Rd, New Lynn, AUCKLAND NZ.

HEALTH FOOD SHOP — Whitsunday Nth Qld. Located in Airlie Beach. Apart from its normal retail activities, the business caters for daily and weekly charter boat operators with lunches and provisions, also wholesales a wide range of products to the islands and mainland resorts. $49,000 + SAV. PRD-Realty. Ph: 079-466-333.

COMMUNITIES

MURWILLUMBAH — share of 300 acre property, 40 acres spotless, tastefully furnished small mountain retreat home. Superb surroundings, Mt Warning Nat Pk boundary. Total privacy, 4WD access only, not for faint-hearted. Solar electricity, rainforest creek at door. 1¾ hours Brisbane, ½ hour Tweed Heads. $52,000 4WD included. Ph: 075-461-148.

HIGHLANDS, VICTORIA. Coorabin Co-operative is a community establishing in the granite hill country two hours north of Melbourne. Most of the 370 acres is bush with creeks, dams and abundant wildlife and adjoins the Switzerland Ranges Flora Reserve. Three cluster developments of up to 18 households are planned. Major interests of members include cooperation, conservation and sustainable human settlement. We are now increasing our membership to our limit of 18 shareholdings and interested people are invited to write to Coorabin Cooperative, 7 Shirly Crt, BORONIA 3155, or phone David Farrow 03-419-1788 BH.

RAINFOREST SETTING Millaa Millaa Nth Qld. 250 acres, 25 shares all sold. Three shares avail $8000 each, freehold title. Family withdrawal forces sale. Wild River boundary, stream through property. National park adjoins (World Heritage nom.), four established houses plus forest meditation huts. Details J McKinnon, PO Box 90, NIMBIN 2480.

RESIDENTIAL SHARES available in large Cape York Peninsula property owned by a group committed to organic farming principles and minimum impact lifestyle. Remoteness and lack of schools, shops and employment requires peaceful, self-reliant people. Full details send 3 x 37c stamps to Sandi Feller, Portland Rds, VIA LOCKHART RIVER 4871.

BELLINGEN share in established 650 acre co-op, M/O approved, 10 km town, private, basic cosy house in forest. Approx 1½ acres cleared, dam, school bus, suit couple 1 child. Co-op requirements not stringent $30,000 ONO. P. Callaghan, Almond Ave, BRIDGEWATER 3516.

GRASSIFIEDS

COMMUNITIES

BLACKHORSE CREEK via Kyogle. Twenty-fifth share 970 acres established community beautiful entire valley. $8500. Peddie Cafarella, C/- PO, MIRRIWINNI 4871. Ph: 070-676-292.

NORTHERN NSW 100 acre blocks bounded by Clarence River and pretty gully. Picturesque bushland setting, cleared/timbered areas, numerous swimming holes. All weather access. More families welcome as we wish to start our own school but State school available. $23,000. Mike, PO Box 56, TABULAM 2470.

APPROVED strata title development. House on 2 acres. Near completed 2 B/R solid natural timber home with verandahs. Self-sufficient, solar-powered. House orchard, ample water. Scenic, tranquil location. $52,000 negotiable. 2 acres NE aspect. Fenced, large dam, good soil, sealed road to boundary. $16,000 negotiable. Both blocks have use of extra hamlet land; good access and power available. Genuine sale. Karen, C/- PO, ROCK VALLEY 2480.

TASMANIA LEVEN RIVER 60 km Ulverstone, ⅛ share 200 acres lush rainforest, new 2 storey, 8 sq cottage, north aspect, fuel stove, solar/generator, creek with 4 kw potential. Myrtle, sassafras, blackwood, understorey of tree ferns. $39,000. Second ⅛ share with treehouse (featured in 'Home Made Houses' and house site. Mountain views, B/room, loft, stove, kit/din, v/dah, 60 ft suspension bridge. $19,000. Ph: 004-255-107.

HALF SHARE, two quarter shares, 116 bushy acres 40 mins Glen Innes, permanent water, double creek frontage, dwelling, shed, crystals abound, orchard, workshop. All weather access. Includes many extras. $15,000. Write Walsh, 135 Station St, WARATAH 2298.

A SHARE in a 650 acre community 10 kms from Bellingen. 3 acre cleared site, liveable shed with wetback combustion stove, solar panels, permanent crk, pump to 4000 gal storage, generator, chainsaw, brushcutter etc, 30 fruit trees and bananas. Share backs on to State Forest and above frost line. Ted, PO Box 210, BELLINGEN 2454. Ph: 066-551-970.

THE LILLIFIELD Community has 330 acres of beautiful land in the hills between Lismore and Murwillumbah. It's about fifteen minutes from Nimbin and an hour from the coast and is fully approved by the local council. Overall, the land is owned by an incorporated company but each member has shares which give entitlement to about four acres for private use. In addition, members share in over 100 acres of common land which is available to all for recreation, forestry, agriculture, etc. as well as having the use of the Community Meeting House, the tractor and other equipment. The Daystar Rudolf Steiner School is located on adjoining land. The basic framework of roads and dams has been completed and our membership has been substantially established. Now we are looking for about ten more families to take us into the final stage of our developing community, people who will respect this beautiful land as well as each other. The share price of $15,300 per household entitles you to all community facilities as well as to possession of your chosen four acre site. If this appeals to you please write to: 'Lillifield', LILLIAN ROCK 2474. Ph: 066-897-224 or 897-323.

THORA BELLINGEN VALLEY, north coast NSW, twelfth share in an entire valley. 1100 ac of crystal clear streams, rock bottom pools, rainforest, hardwoods, creek flat meadows and tranquillity. Close to Steiner School. $40,000. Ph: 066-558-550.

SHARES IN COMMUNITY on Sunshine Coast hinterland, ¾ hr to beaches, 5 mins to town. 5 acres in sub-tropical rainforest, lots of birdlife, very large variety of fruit and nut trees, shed, dam, chook run. 2B/R rustic house, solar and gas equipped. Ph: 071-470-226 AH.

TO RENT

FURNISHED BEDSITTER and use of w/shop for tidy person, SE Tas, quiet bush setting, close to beach and facilities, power, GR neighbours, room for garden etc. $200 bond, $120 month. D Vliegen, RMB 1180, KOONYA 7187.

SMALL SECLUDED COTTAGE (furnished) on 70 acres natural bushland. Phone, solar power, septic, permanent creek, 1 acre established raspberries, 20 km Oberon (west of Sydney). $40 pw plus optional income raspberries. Ph: Chris/Tricia 02-241-1028.

SPACE ON PROPERTY for permaculture minded people into self-awareness as well as nature-awareness and interested in setting up community. No drugs. 40 mins to cities and beach. Ph: Dhiren 065-504-148.

FAMILY WITH 2 primary school children or more required to rent a 4B/R house with large area for gardens, fowls etc., on a property in Graman near Inverell NSW. Desperate to keep our small school going. Lois Reardon. Ph: 067-256-411.

EXCHANGES

EXCHANGE FOR LAND or sell 2 gypsy style horse drawn caravans, can also be towed by car. Equipped to live in, value $8000. Ph: 066-791-315.

SWAP HOUSES for 6/12 months 1989. Ours is Sydney inner city suburb Glebe 2 B/R terrace renovated, yours is secluded bushland setting with acreage NSW Vic Tasmania. Ph 02-660-8795.

WANTED

CARETAKER required for 10 ac frost free farm near Kew NSW; while owner works Sydney. Long term arrangement. Orchard, garden plus your own cultivation. In return, free accommodation with electricity/water in converted bush-shed and share in income from established fruit trees. Single or small family OK. Write C Burnat, 2SER-FM, PO Box 123, BROADWAY 2007. Ph: 02-212-3573 or 02-819-6728.

MATURE AGE STUDENT studying in Toowoomba 1989 requires place to rent/caretake for year. Has small quiet dog and cat. Refs. available. Contact Margaret Moss, PO Box 379, PROSERPINE 4800.

ADVICE on where I may be able to learn zen meditation in Melbourne or Vic, also where I can buy and learn the Japanese zen flute the Shakuhachi. Thanks. Contact: Ian Lamont, 7 Powlett St, MORDIALLOC 3195 or Ph: 03-580-0186

DEADLINES: GR 70 – OCTOBER 31ST
GR 71 – DECEMBER 30TH

YOUNG COUPLE (28, 25) marrying before Christmas, seek cottage near water (preferably ocean), northern NSW, southern Qld. To rent 1-2 weeks for honeymoon early January 1989. Peaceful private place sought since have spent last five months overcoming Nik's leukemia. Write: Caroline, 18 Retreat Rd, HAMPTON 3188.

HELP! I am compiling a seasonal work guide. Need data from your area or experience. It will only cost you postage. Please let me know what industries — shearing/stock/crops/picking (what fruits)? When does season start/end? What accommodation locally, nearest town, Post Office and postcode. Plus any other details you can provide. Expect publication mid 1989. (Not doing for profit.) Thanks in advance. Replies: G T Sawyer, Box 61, BLYTH 5462.

CARETAKER WANTED. Alternative lifestyle bushland property near Sydney. Rent free for service. Interest in garden, animal, craft, simple lifestyle. Suit young couple or singles willing to share. T Trainer, PO Box 184, PANANIA 2213.

DISTRIBUTOR for cassettes of beautiful, relaxing music played on zither and guitar. Contact the Lyrebird School of Music, 63 Morrie Cres, NTH BLACKBURN 3130. Ph: 03-898-8950.

HOUSEKEEPER caretaker, companion to share hills and dales of farmlife. Female, non-smoking. Mixture of the above needed on property by 37 yr old unconventional, learning, seeking yet down to earth germanic male individual. Dhiren Howorka, Ponsford Rd, COMBOYNE 2429. Ph: 065-504-148.

MOVING TO BENDIGO for education, family of 3 require housing 30 km radius. J Bullock, C/- PO, QUORN 5433.

WE ARE GOING overseas July-August 1989, would like to get to know family willing to caretake small property in western Victoria. Must love animals and be prepared for pioneer lifestyle. Would love to get to know you over the next twelve months. Contact Stewart, Box 13, DUNOLLY 3472. Ph: 054-697-254.

PEOPLE WANTED to live on and care for 8 ha, Wallum near Caboolture. Arrangement very negotiable. If you are interested, please write to me, Pieter Bruinstroop, C/- Commerce Department, UQ, ST LUCIA 4067.

WE ARE A COUPLE (37 & 29) with 3 children, we want to get out of the city into a country environment (around Nov 88) where we can bring up our kids with sane minds. We want to rent (with option to buy) a house on some land so we can be as self-sufficient as possible, but we would still need some work nearby. All areas considered, all replies answered. Anille & Bob, 7/4 Rothschild St, GLEN HUNTLY 3153. Ph: 03-211-8159.

WANTED BABYSITTER for a house in Cooktown. Retired lady preferred, own single accommodation. Dale, PO Box 123, COOKTOWN 4871. Ph: 070-695-374.

WANTED house to rent/lease NSW VIC or TAS. We are 2 women in urgent need of a country house, pref bush/mountain setting. Power not essential but peace/solitude is. We have gardening experience. Will exchange work if necessary. Please contact S Bell/E Beveridge, C/- PO, BOWRAVILLE 2449.

GRASSIFIEDS

WANTED

CARETAKER/HANDYMAN. Active, lone lady early 60's needs help of trustworthy gentleman 50-70 WA. Small mixed farm peaceful country near Bindoon. Own transport essential, caravan an advantage. Scope follow own interests. Assist with work occasionally. Reply Helen Craker, C/- PO, BULLSBROOK 6084. Ph: 09-576-1155.

RELIABLE LADY with two school age children seeks caretaking position from Dec/Jan, Nth NSW. Willing to exchange work for rent. Contact Susan, 1 Gardiners Rd, MACLEAN 2463. Ph: 066-452-731.

SLOW COMBUSTION STOVE. Must be good, suit new house. Ph: 066-462-792.

FIVE YEARS OLD son and I will be spending one week in Melbourne in January '89 taking part in the Suzuki Pan-Pacific Conference. We would like to find quiet, friendly and cheap accommodation there. Does anyone know of such a place? Do any Suzuki (violin) parents read GR? I would very much like to get in contact with them. V Gledhill, PO Box 474, KURANDA 4872.

GR NO 16 — please write to A. Fundak, PO Box 1039, MILDURA 3500.

INFORMATION on Howard Junior 5HP rotary hoes, parts, owners or workshop manuals, any information gratefully accepted and given. Reason — broken down. K Burrell, 'Hillvue' Tunnel Rd, MULLUMBIMBY 2482.

BEEHIVES to put on our property. Plenty of native trees and 20 fruit trees, in exchange for bee keeping knowledge. Paul Ware, PO Box 65, DOUGLAS PARK 2569.

ACCOMMODATION to rent, caretake or share on acres for 36 yr old gardener/handyman working in Dural willing to maintain or renovate. Sane honest, reliable, good with animals, children and old cars. Kevin Ph: BH 02-651-2411. Leave message.

SINGLE PARENT with 4 dependants wishes to purchase house (with land suitable vegetable garden) on a private rental-purchase agreement. Write with full details to Advertiser, C/- Box 764, SHEPPARTON 3630.

DRIED PLANT MATERIALS anything unusual collected from the wild or grown yourself. Flowers, herbs, seedpods, gumnuts etc. Call us first or send samples. PO Box 187G, RICHMOND 3121. Ph: 03-818-2673.

WANTED HOUSE or cottage between Grafton and Great Dividing Range. Willing to exchange work for rent. From now until June next year for family. Contact G. Ross, C/- PO CRANBOURNE 3977.

OPPORTUNITIES

RURAL PARADISE COFFS HARBOUR area for nature loving person or couple approx. 35-50, non-smoker(s), tidy, preferably vegetarian. Beautiful large new modern two bedroom brick flat with open fire. Keep own horse, poultry, vegetable garden. Only quiet trustworthy persons with good references need apply. Write Secretary, PO Box 1262, PORT MACQUARIE 2444.

DEADLINES: GR 70 – OCTOBER 31ST
GR 71 – DECEMBER 30TH

IS THERE ANYONE interested in living on a beautiful 50 acre property in the s/west of WA? Free board and accommodation in return for help — mainly in the house. Interest in horses an advantage. Suit single lady with small child. Definitely no drugs. For more info. contact Anne, RMB 338, BRIDGETOWN 6255.

TARREMAH SCHOOL for Rudolf Steiner education opened in Hobart in June 1988 and is now successfuly operating as a kindergarten and play centre. We are currently seeking a teacher for a composite class 1/2 for 1989. If you feel that you have a connection with Tasmania and are interested in the position please write with your details to us at Tarremah School, 10 Warneford St, SOUTH HOBART 7000.

CARETAKER HANDYPERSON. Free furnished luxury grannyflat available for retired pensioner/couple with genuine interests in gardening, growing vegetables, nature, and love for children, in return for caretaking and help around small property in Gold Coast hinterland. Please write with details to Beste, C/- PO, MUDGEERABA 4213. Ph: 075-303-157.

WOULD YOU LIKE your own business? Send long SASE to The Manager, Aberac P/L, PO Box 654, NARRABRI 2390.

CARING AND SHARING seaside cottage NSW south coast. Broadminded unemployed single male seeks youthful male/female yearning uncomplicated naturistic lifestyle. Essentially honest considerate person, health conscious without fanaticism. Optimistic cheerful outlook, appreciative simple pleasures beachside environment. Comfort security happiness contentment through mutual understanding. Paul Glass, PO Box 537, ULLADULLA 2539.

I'M A SINGLE 38 yo guy with holiday access to my 8 yo daughter. I offer one or two weeks away in the bush at my home to single mum with one or two children, with no ties etc just for the company. Please write with details of family etc to K Gatenby, PO Box 49, ST ARNAUD 3478.

FREE ACCOMMODATION in small isolated cabin on farm in Snowy Mountains NSW in exchange for 10 hours gardening each week. Probably some work available helping build mudbrick house. Ph: Sue 064-578-181.

MOORA MOORA COMMUNITY school, a small alternative school in a bush setting near Healesville is now accepting enrolments. Enquiries and inspection by appointment welcome. Write PO Box 521, HEALESVILLE 3777. Ph: 059-625-932.

ALTERNATIVE LIFESTYLE group seeks mature, pref male primary teacher of Steiner education for a rural area. Vegetarian. Must love music or play instrument. Salary neg. 'Grass Tree Blossoms', PO Box 474, KURANDA 4872.

MAKE MONEY AT HOME: rag rugs for fun and profit. Detailed, illustrated instructions. For your copy send $5 to 'Cottage Garden Press'. PO Box 234. CANTERBURY 3126.

If you wish to change your Grassified please give us FULL details of your name, address and the content of the original advertisement.

SERVICES OFFERED

REDUCE STRESS, lose weight, feel younger, stop smoking. Dr. Ann Wigmore's wheatgrass and living foods programme, comfortable accommodation, thorough training, family atmosphere, low prices. Write or phone for free details now: Hippocrates Health Centre of Australia, 21 Monaro Rd, MUDGEERABA 4213. Ph: 075-302-860. Featured in 'Woman's Day' and 'Extra Dimensions'.

SUPERVISED FASTING for health and rejuvenation, weight correction, also acupressure. Ring or write to Kooringal, Three Bridges, VIA YARRA JUNCTION 3797. Ph: 059-667-296.

PYRAMID KIT — pyramids are said to: aid meditation, cure headaches, heal ailing plants and animals, purify drinking water, preserve food, be used as a skin/beauty treatment, enhance plant growth. Now you have the opportunity to test for yourself the potential of the pyramid. Kits $45 each. Angles supplied, dowel lengths extra. Send SSAE to 'Pyramid Power', PO Box 551, MUDGEE 2850.

JOB WANTED: I am a 22 yr old female with a great love of handcrafts. I have excellent sales experience, am friendly, bright, have a good sense of humour, keen to work and learn any new skills. Any offers in or near Melbourne metro area greatly appreciated. Please contact Melissa O'Brien, 157 Mitchell St, NORTHCOTE 3070. Ph: 03-486-1129.

LET NUMEROLOGY open your way to self understanding and balance. Know your life's true purpose. For your personal chart send full name at birth and date of birth plus $22 to Jacqueline Roberts, PO Box 139, NAGAMBIE 3608.

ASTROLOGER — qualified, charts, character analysis, forecasts, synastry, help and advice, all problems. For more info. write: Kerry McAleenan (DMS Astrol. London), 86 Brisbane Corso, FAIRFIELD 4103. Ph: 07-844-2178.

NUMEROLOGY. Full personal reading. Send complete name, any nickname, birth date for you and your partner. Special GR price $15 plus large SAE. M Holland, PO Box 25, KINGSTON 2604.

FLOWER ESSENCES a simple and effective method of healing for use in every home. We supply an extensive range of stock bottles at $2 each. Send 2 stamps to Natural Flower Remedies, PO Box 1796, MACCLESFIELD 5153.

DEEP RELAXATION. The practical meditative way of relieving stress and tension. Currently taught at the University of Sydney and Macquarie University. Two simple, self explanatory lessons on a cassette tape. Price $14 (including postage). Post your order to: Preceptor Human Development Resources, PO Box 127, COLLAROY 2097.

PUBLICATIONS

POULTRY BREEDERS DIRECTORY. The Poultry Breeders Directory is designed to help increase numbers of rare poultry and to upgrade standard breeds. If you would like to be included in this invaluable new handbook, please send us your name, address, and details of poultry kept. For further details send SSAE to RMB 2115, NAGAMBIE 3608.

GRASSIFIEDS

PUBLICATIONS

'COOKING WITH LOVE' Wholefoods for healthy babies and children, by Christine Hepworth. 52 pages. Recipes using wholegrains, vegetables, soyfoods (tofu, miso, soymilk), fruit. All natural, no sugar etc. Information on pregnancy, breast-feeding, weaning. Available from Author, PO Box 69, LAWSON 2783. $5 post paid.

THE GOATKEEPER'S MAGAZINE for all the latest industry news. Covers dairy, fleece and meat. $20 per annum (6 issues). Write to TGM, PO Box 232, INVERELL 2360. Bankcard welcome.

THE VOICE OF THE ORGANISM — An educational publication devoted to the practices of Natural Living and Natural Healing. Informative articles on the Philosophy of Nature Cure, Diet & Nutrition, Organic Gardening, Vegetarian Recipes, all aspects of Natural Healing and restoration of health through a natural lifestyle. We do not prescribe or administer the use of any drugs, medicines, food supplements, herbs, tablets or any other 'curative' agent. Published quarterly; $15 per year. Subscribe to K & K Hinton, 13 Baxter St, TOWNSVILLE 4810.

THE SPIRAL CONNECTION, new age directory — Victoria. Courses, practitioners, centres, retreats. Place your listing today. Enquiries: Patricia Hooper, Spiral Bookshop, 269 Smith St, FITZROY 3065. Ph: 03-417-2576.

LA MANCHA RECIPES by Matthew Steele. 70 low-fat, easy-to-prepare, vegetarian recipes. Send $4 to La Mancha Health Centre, WOLLONGBAR 2480.

ANIMAL FRIENDS, quarterly, the magazine for all who love animals. If you share your life with an animal friend this is the magazine for you. Regular features include veterinary column, book reviews, young people's page, lively letter pages plus factual and entertaining features. Animal Friends is only $6 a year. Animal Friends, 40 Northam Rd, EAST BENTLEIGH 3165.

AUSTRALASIAN HEALTH and Healing — journal of alternative medicine, Australia's major health care quarterly, emphasising self healing and prevention of illness through measures which raise body defences. Sold at most newsagents and health stores $3.50 each, and by subscription $12.50 per four issues (1 year), $23 eight issues (2 years). Write Australasian Health and Healing, 29 Terrace St, KINGSCLIFF 2487.

TEXTILE-FIBRE FORUM is the tri-annual colour magazine of the textile arts for Australia. Subscriptions in 1988 are $15.50 which includes membership in The Australian Forum for Textile Arts (two-year subscriptions are $30). Sample copy of the magazine is $5, postpaid. Send to AFTA, PO Box 77, University of Qld, ST LUCIA 4067. Make cheques payable to AFTA. Good information on how to make things is included.

ORGANIC GROWING a quarterly magazine about growing food the natural way. Gives you practical ideas for organic gardening, farming, livestock and related subjects. Available at newsagents ($2) or by annual subscription $10 Australia or $12 overseas. PO Box 228, ULVERSTONE 7315.

IMAGINE! (formerly Maggie's Farm) alternative network magazine. A unique experiment in access press run by a volunteer collective as a regular news service linking many citizen initiative groups and networks world-wide. Planet earth news, hues and views. Eco-action, health & healing, new technology, psychic reality and communal lifestyles. 4 issue sub $10. Imagine, PO Box 151, LAWSON 2783. Ph: 047-824-851.

AUSTRALASIAN SURVIVOR. The magazine that prepares its readers for the fast coming hard times. $2 for sample. PO Box 11, DICKSON 2602.

NEXUS NEW TIMES Magazine is an independent publication bringing you the essential facts behind today's news. We describe new ways of living which improve your mental and physical health and enable you to thrive in the late 20th century. Take part in positive change — subscribe now! $12 per year. NEXUS New Times, PO Box A556, SYDNEY SOUTH 2000.

DONKEY SOCIETY of Australia, for information on magazine subscription, publications, books and the care of donkeys. Contact federal secretary, M M Smith, 'Warrawurra', Bushells Ridge Rd, WYEE 2259.

AT LAST the Permaculture Design Manual by Bill Mollison is available. This definitive book on permaculture has 600 pages, 450 line drawings and 130 colour photos. $58 + $5 p& p before Christmas '88. After Christmas '88, $70 + p & p. Send cheques or MO to: Permaculture Book, PO Box 105, NIMBIN 2480.

STRETCH SEWING MANUAL written by experienced dressmaking teacher, $4 posted. Jill Mitchell, 12 Mullacor St, FERNY GROVE 4055.

MISCELLANEOUS

APIARY EQUIPMENT, 8 frame, including large quantities of assorted new and used supers (80 hives), with lids and bottom boards (120 ea.), machined and unmachined supers and 6⅝" boxes (1800 off), frames (1000), clips (3000), screws (PK), cleats, nails etc. Prefer to sell as a whole or in large lots. Price neg. depending on lot size. Ph: 08-332-5961 AH.

110 VOLT APPLIANCES, most AC/DC, including irons, sewing machine, vacuum cleaner, coffee percolator, toaster, oven, waffle maker etc. Some tools, box of light globes, neg. Ph: 062-363-363.

ORGANIC BIO-LOO as new condition, requires little maintenance and no water, council approved. $600. Ph: 059-898-256.

PURE LINEN TEA TOWELS for screen printing $18.15 per dozen. Peacemeal Products, PO Box K532, HAYMARKET 2000. Ph: 02-358-6783.

WIND GENERATOR Aerogen 50, 12 volt Urvine pump, Santech regulator, four 6 volt 115 A/H batteries. Ph: 063-374-838.

REVERSE OSMOSIS water filters, remove chlorine, fluorine, bacteria, viruses and many other contaminants. Gillian Summerbell, PO Box 1519, HORNSBY 2077. Ph: 02-477-2838.

MAIL ORDER medical supplies. Price list available from PO Box 83, INGLEWOOD 6052.

ORGANIC NON TOXIC paints, varnishes, polishes and wood preservatives. Natural ingredients environmentally safe. Ask for natural building and living information! Bio Products Australia P/L, 25 Aldgate Tce, BRIDGEWATER 5155. Ph: 08-339-1923.

EMERALD CIRCLE'S monthly newsletter, full of interest for psychics, healers, herbalists, new age folk etc. SAE. PO Box 800, NOOSA HEADS 4567.

MEDITATE on the inner Light and Sound and transcend body consciousness under the guidance and protection of Master Sant Darshan Singh. True spirituality is a gift from God and is given free of charge. For further information please contact Sawan Kirpal Ruhani Mission, 63 Morrie Cres, NTH BLACKBURN 3130. Ph: 03-898-8950.

BLUE DAZZLER torch/searchlight. Powerful 30 watt beam and heavy duty battery rechargeable with ordinary 12 volt charger. Direct from factory price $75 each. G B Douglas, PO Box 215, WHITSUNDAY 4802. Ph: 079-466-738.

CHIP HEATERS. No electricity needed for instant hot water, operates from town or tank water supply. $135 including packing and postage 'Heaters', 358 Centenary St, ALBURY 2640. Ph: 060-215-469.

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EARTHWORM SPECIAL. Only $11.50 for 1000 plus $1.50 p & p or $7 for 500 plus $1.50 p & p. Always generous overcount plus full instructions. Offer for 2 months only. 'The Big Worm', PO Box 149, 42 Redhead St, DOOLANDELLA 4077. Ph: 07-372-6267.

RAMMED EARTH cottages are much better than mudbrick especially if rammed with powered rammer. Easy to handle, shaped head attached, assistance with cottage, formwork design, site planning, methods etc. Phone Blue Mountains 047-877-432.

SAVE AND DO IT the Quick Brick way. Quick Paver, Quick Brick and Quick Form (in situ block maker). The fastest and easiest machines available in Australia. Send SAE for brochures to Quick Brick, PO Box 627R, GYMPIE 4570. Ph: 071-827-099. YOU can do it yourself the Quick Brick way.

SPECIAL REDUCED RATES. 1 kg net weight of mixed size worms (approximately 4000 worms) for $35 including freight NSW. $4 extra interstate. For gardeners, fishing-bait and aquarium food. We will not be beaten on price or quality on any order large or small. Enquiries to Wormborough Farm, PO Box 794, TAREE 2430. Ph: 065-539-633.

RED RATTLER TRAINS. Unique opportunity (2). No more available. Make excellent weekenders, exciting style and atmosphere, or business feature. 5-6 squares each. Ph: 03-481-6869 or 03-685-706.

STAMPS — selling mint and used Australian, Commonwealth and world stamps. Albums, handbooks also. Lists from Portland Stamps, PO Box 325, PORTLAND 3305.

SOLAR PANELS 42W $750, 2 x 24V cast aluminium wind generators $800 ea., 1100W 24V invertor $1000, all equipment 6 months old. 6 x 2V batteries $420. Ph: 049-970-080.

GRASSIFIEDS

MISCELLANEOUS

BOOKS — selling new and used books; history, travel, Australiana, politics, philosophy, diet, lifestyle etc. Lists available. Wallace, PO Box 325, PORTLAND 3305.

TWO GAS/ELECTRIC refrigerators $950 each. Tarcutta. Ph: 069-287-168.

GRASS ROOTS nos. 12, 14, 16, 17, 45, 47, 49. Ph: 03-870-1832.

BUSH FIRE SAFETY. Fire doors suit house, bush fire shelters, sheds, garages etc., fire rated doors — solid core for extreme fire conditions. Bargains, fraction of new price, exc. condition. Ph: 03-481-6869.

WIND GENERATORS (3) Swiss 'Elektro'. (1) 4.5 kW 240 volt with full control, load dump, 10 kW converter, 40 ft tower, $14,000 ono. (2) 4.5 kW 110 volt $10,000 ono. (3) 300 watt 24 volt $1500, tower $500. Ph: 062-363-363.

COURSES

WICCAN HOME STUDIES and Australian Aromatherapists Association correspondence courses, certificate and diploma. Aromatherapy and post graduate aromatherapy, safety and security, psychic self development, psychic healing, Wicca. Past life or predictive readings on tape by mail. Free brochure of study choice, or applications for AAA membership. Clair and Simon Lorde, PO Box 80, LANE COVE 2066. Ph: 02-699-6166.

DO YOU WISH to paint beautiful Australian landscapes in oil? My 2 hr video can teach you faster and better than you can imagine. $52 includes postage, VHS or Beta. For info contact Len Hend, PO Box 502, MULLUMBIMBY 2482. Ph: 066-841-027.

BIODYNAMIC GARDENING for home and market gardens, 7-8 October, 2-4 December. Beekeeping with sensitivity, the relationship between beemaster and honey bee, 25-27 November. Tapitalee Retreat, Illaroo Road, NOWRA 2540. Ph: 044-460-138.

LEARN GUITAR BY CASSETTE. This excellent beginners' course will teach you to play guitar with no previous experience of music. Instruction book and cassette cover tuning, chords and solos. Compiled by top professional musicians & teachers. Cost $25 (post free). Order from Brunswick Publications, PO Box 252, CROYDON PARK 2133.

HANDCRAFTS

POTPOURRI & SACHET SUPPLIES. We now have the largest range of materials for potpourri work at the lowest prices in Australia — potpourris, flowers, herbs, spices, essential oils, books . . . and much more. Small or large quantity, our price and range is the best. Write for free mail order catalogues: Potpourri & Sachet Supplies, PO Box 53G, NORTHCOTE 3070. Ph: 03-489-8405.

SANDALWOOD suitable for carving and perfumery $25 per kilo post paid, 500 g minimum. Also now available sandalwood shavings natural $25 per kilo. Sandalwood shavings treated to Indian profile, rose or lavender also available at $15 per 500 g. Natural rose oil available on request. Post cheque or money order to Sandalwood Products, PO Box 169, LINDFIELD 2070.

ESSENTIAL OILS, pot pourri & natural products for aromatherapy and craft work. We are the manufacturers of raw materials for making massage oils, soaps, cosmetics and household products. Our extensive range includes: essential oils, absolutes, fragrances, vegetable oils, gums, waxes, extracts, pot pourri, herbs, spices, essences, pottery, containers. Buy them from us direct, small or bulk sizes and save with our low prices. Send stamp for free catalogue to AUROMA, PO Box 187, Richmond 3121 or call in at our shop at 68 Burwood Rd, HAWTHORN 3122.

SANDALWOOD and buddah wood. Large pieces suitable for carving, also chips and powder. $18 per kg plus post. Roses and lavender. $24 per kg plus post. Natural genuine rose jasmine and boronia oils. Price on request. COD send no money. Australian Botanical Products, PO Box 187, RICHMOND 3121.

HOLIDAYS

RELAX AND RETREAT IN NATURE, alternative housing and technology, vegetarian food. Cost $40 per day fully catered. Tapitalee Retreat, Illaroo Road, NOWRA 2540. Ph: 044-460-138.

FARM HOLIDAY, new cabin, all cons., 80 miles Perth. Ph: 098-876-025 for brochure.

LA MANCHA HEALTH centre, Wollongbar 2480. Motel-like accommodation. Beautiful rural environment. Professional help with medical problems or have a healthy holiday. Low rates. For brochure 066-295-138.

HORSE RIDING HOLIDAY down on the farm. All aspects of horse care & learning to ride. Scenic trail rides, games on horse-back or just laze about the farm, swimming, fishing, canoeing, bushwalking, picnics, hay rides, in friendly country atmosphere at Valhalla Appaloosa Stud, Falls Creek. Unaccompanied children catered for school hols, other times group bookings can be arranged. Ph: 044-478-320.

VISIT KOOKABURRA FARM. See commercial organic market garden with pigs, poultry, sheep, cattle, working horse and bees. Also mudbrick building and demonstration, dam, windmill, farm walk (about 1 hr duration) and Devonshire tea for $5 adult, children free. Located 12 km from Pacific Highway. Take Bowraville turnoff at north end of Macksville bridge. Open Sundays (and school holiday Wednesdays) at 10 and 3. Ron and Dale Hawkins, Kookaburra Farm via BOWRAVILLE 2449. Ph: 065-647-461.

RIAMUKKA RESORT situated high in the New England Ranges offers you an inexpensive farm holiday where you can relax naturally. Treks, Aboriginal culture, drama, horse riding, every dwelling has its own fireplace. Kids love it, everyone loves it. Please contact your hosts Richard and Caroline for further information. 067-770-919.

LIVESTOCK

LOVING GRASS ROOTS home needed. Two wonderful wethers. One Anglo-Nubian, one Saanen. Great with kids, personality plus pets, deliver reasonable distance. Bargo. Ph: 046-841-017.

DEADLINES: GR 70 – OCTOBER 31ST
GR 71 – DECEMBER 30TH

ANGLO-NUBIAN DOE 4 yr old. Will tether. Sale $50 or lease (free) to good home only. WARRANDYTE. Ph: 03-844-2002.

FORCED SALE, two lovely riding ponies, golden dun gelding 14.1 hh, bay mare 13 hh, both lively. Good home essential. PO Box 32, MULLUMBIMBY 2482. Ph: 066-841-150.

When working out the cost of your Grassified don't forget to count your name and address if they are to be included in the advertisement.

FOOD AND KITCHEN

WELLSTOOD WOODSTOVE D/L with hot water booster. $600. Ph: 057-534-531.

PURE DRIED BEE POLLEN, sprayfree, from non agricultural flora. 450 g @ $8.50, 1.9 kg @ $30. Island Bees, PMB Althorpe Isle, COWANDILLA 5033.

FOR SALE — Samap stone hand operated flour mill. Cost $180 sell $65. Health fountain juice extractor. Cost $65 sell $30, or $85 for both plus freight. Write 54 Jonathan St, WARNERS BAY 2282. Ph: 049-486-915.

MILL YOUR OWN stone ground wholemeal flour for cakes and bread at home with a Retsel Little Ark Stone Flour Mill. Endorsed by Housewives Association. Write for catalogues to Retsel Distributors, PO Box 712, DANDENONG 3175 enclosing 3 x 37c stamps or telephone 03-795-2725. Distributor enquiries welcome.

GARDEN AND ORCHARD

NON-HYBRID VEGETABLE and herb seeds, old traditional open pollinated varieties. Send 2 x 37c stamps for list. Eden Seeds, MS 316, GYMPIE 4570.

COMPREHENSIVE catalogue Australian native seeds. 1800 species. Price $6 posted. Bliss Partnership, 'The Cedars', BUNDARRA 2359.

KINGS SEEDS — 440 varieties, herb, flower, oriental and gourmet vegetables and dried flower seeds. Send $5.50 (p & h incl) for our colourful 1987-89 catalogue and 1988 supplement. Supplement only $1.00 posted. Send SASE for price list and order form. Wall charts on using herbs — $3.75 each + $2.00 p & h per order. Kings Herb Seeds, PO Box 14, GLENBROOK 2773.

SEEDS OF UNUSUAL useful plants. Open pollinated oriental and hot weather vegies, fruits, fragrants, curiosities, low maintenance flowers. 50c pkt. For list 2 x 37c stamps to L Blaney, Wallace Road, BEACHMERE 4510.

CLUBS AND SOCIETIES

LETS GROW GARDEN CLUB. A new correspondence club with Glen Heyne, John Mason, Graham and Sandra Ross and Mike Keelan. Benefits include: subscriptions to Garden Scene Magazine (usually $27); mail order catalogue; exclusive plant and seed collection; workshops, courses, tours and holidays; special discounts on books, tools, products. etc. Send $30 annual subscription to 'Let's Grow', The Garden Cottage, Malmsbury Rd, DAYLESFORD 3460.

JOIN AUSTRALIA'S LARGEST garden club. Members receive quarterly magazine, free seeds, access to extensive cassette lending library. Write to The Secretary, PO Box 110, MAPLETON 4560.

GRASSIFIEDS

CONTACTS

PARTNER SOUGHT by single Scorpio, 38. Handsome, healthy and fit, ex-businessman. To jointly purchase property with or without dwelling, prefer Vic, NSW or Qld coastal hinterland. View self-sufficiency, relaxed, healthy, low stress lifestyle, with or without alternative farm income from craft, accommodation, horticulture, tourism etc. Have hoarded heaps of material for building, tools etc. and have lots of practical skills. Would suit an honest, financial, environmentally aware, easygoing, non-smoking, non-radical woman, age open. My interests include outdoors, nature, organic farming, gardening, building, good simple food, travel, music, golf, craft, swimming, boating, fishing, scuba, landscaping and more. Non-ockerish, non-chauvinistic, romantic but realistic nature. Alternatively, does anyone with similar interests and aspirations have a project under way and would consider taking in an honest, financial, working partner to help make it all work? Any size project considered. Genuine only, please. A.L.A. Paul O'Neill, PO Box 209, BERMAGUI 2546.

25 YEAR OLD Cancerian male, 5'7" tall, 61 kg, easy-going, caring personality. I enjoy O/T dancing, fishing, water-skiing and out-door life. I am not into smoking or drugs. Seeking companionship of a non-smoking lady with a caring nature and interested in a country lifestyle. Please write to AR, PO Box 156, SARINA 4737.

WOULD YOU LIKE to share your GR dreams with a gentle, caring, nature loving earthling, a kindred spirit? Why not start by writing to your soulmate and let it build into something really special. There's only a moderate fee. Contact Trish, Checkmate New Encounters, PO Box 492, MACKAY 4740. Ph: 079-512-187.

LADY 40, wants male companion. Am intelligent, loyal, affectionate, adventurous. Would like similar male. Lee, C/- PO Box 764, SHEPPARTON 3630.

GENTLE GUY 30 years, professional, 5'10", slim, handsome, caring, sensitive, considerate, intelligent. Like to meet slim, attractive lady with sense of humour and open minded attitude to life. Age open for perm. relationship V.T.M. David, Unit 4, 6-10 Hoad St, GRIFFITH 2680.

AUSTRALIAN 32 yrs, Christian, quiet, honest, strong, outdoor loving man. Wishes to meet any Christian lady, view possible marriage. Must be sincere, non-smoker/drinker. Mr Tate, Lot 34 Combined St, WINGHAM 2429.

I AM A CARING, sincere 28 yo male seeking a confident expressive and creative lady or single mum who likes semi country living, who has no hang ups. Please write to P Payne, Lot 36 Pythias Crt, MILLGROVE 3799.

ARE THERE ANY slim ladies in the Gympie area, single divorced or unmarried mums who would enjoy sharing rural lifestyle? Not interested in age, nationality, but interested in a caring person and uncomplicated things of life. Phone number for first contact. Jon, C/- PO Box 764, SHEPPARTON 3630.

PISCES MAN, 34 wishes to meet lady, 25-35, view perm relationship. Interests include music, writing poetry, GR lifestyle, arts and crafts. Reply Bill, PO Box 279, GOSFORD 2250.

ATTRACTIVE Australian lady 52, living on small farm, would like to meet independent, tall, healthy gentleman, light drinker and smoker who has own farm or similar interests, animals etc. Write C/- PO Box 82, DORA CREEK 2264.

TWO WOMEN interested in meeting GR couples, families or singles in local area with view to making friendships. Contact Shiralee, PO Box 138, TARA 4421.

GUY 35, 6' tall, would like to meet lady 20-35. I am going home to Qld before Xmas for my holidays. I wish to establish a secure relationship before the end of the year. Please send personal particulars to John, 15/53 De Carle St, BRUNSWICK 3056. Ph: 03-386-7364.

I'M AN INTELLIGENT, independent, idealistic, argumentative, stubborn, impulsive, loving and playful 42 yo woman. I love animals, reading, writing, country living, open fires, horseriding, cuddles, the sea and tranquillity. I would like to (initially) correspond with a gentle but strong man (45-50), intelligent, with a great sense of humour (he'll need it!). I'm 5'6", with fair hair, blue eyes, slim build. Please write to Kate, C/- 84 Main St, UPWEY 3158.

AWARE, NEW AGE LIBRAN male seeks loving support partner. Expectations and possessiveness are not me. I am into personal growth, lifestyle. I do know that two unconditional loving hearts go beyond mere electricity. I like outrageousness and telling the truth, faster life can be simple, the choice is ours. Reply PO Box 430, MALENY 4552.

HI THERE, I've just moved to the Sunshine Coast with my children, and am looking for contacts, people with the same interests and ambitions as I. Basically organic living and owning a piece of land. Please write: Linda, C/- 5 Ascot Way, Little Mountain, CALOUNDRA 4551. Ph: 071-916-542.

ADVENTURER IN PARADISE (tropical island). Would like to contact lady with blue eyes or Japanese who cares for her mind and body, hopefully likes backgammon, music, the flowers in life's garden and derives no pleasure from smoking. Is it too much hoping she plays the flute, if only! I'm 39, a chap with similar interests to above plus scuba diving, martial arts, perennial philosophy. Reply Adventurer in Paradise, C/- PO Box 764, SHEPPARTON 3630.

LADY (34) seeks genuine Christian guy to 44 years for permanent relationship. Must be vegetarian, non-smoker, non-drinker, fond of children and simple country living. Kate, 'Glen Lee', Bonshaw Rd, VIA ASHFORD 2361.

COOEE — David Foster, Pundi, Larry Johnson, The Black Cockatoo and Aeroplane Ears. Where are you all camping? 'Wychwood', GOONGERAH 3888.

GUY 35 SCORPIO. Fit, attractive with two girls 10 and 14. Live on 5 acres bush in Vic. Interests motor cycling, music, the universe and peace. Seek attractive GR lady, companion only. Write David, Lot 2, Berringa Rd, DEREEL 3352. Ph: 053-461-442.

LADY (53) seeking gentle, caring friendship of educated artistic fellow to share love of music, bushwalking, gardening, natural foods, entertaining friends and laughter, N/S. Capricorn/Virgo. G Strode, PO Box 900, FRANKSTON 3199.

FEMALE (39) 5'8", medium build, fair, blue eyes, no kids, owns menagerie, widow of 7 years seeks fella to warm up to. Must be non-smoker, not heavy drinker or take drugs, I want to share life, work, profit with someone on my acreage here in NZ hopefully. Write to Ruth Woischwill, Kati Kati, BAY OF PLENTY RD1, NZ.

GENTLEMAN of a different kind, seeking young lady. Well mannered, honest, clean. I like weekend touring, car, motorcycle, camping. You must be very feminine, gentle personality. I'd like a long lasting, hassle free relationship with reasonable, educated person. Please write H Helfen, Ponderosa, Pacific Hwy, TOMAGO 2322. Ph: 049-648-143.

FEMALE COMPANION/PARTNER wanted to assist lone male 55, growing flowers, herbs etc. Sell in shop attached to 3B/R house, large garden. Prefer slim, adventurous. I like music, travel, dancing, gardening, animals and boats. Ladies any age, nationality welcome. Ph: 055-962-288.

I AM A 39 YEAR OLD feminine 5'4" 9 st, pretty, sensitive, loving female, recently suffered a broken heart, have 10 yr old daughter. Is there a rugged male out there who is not a taker, loves fun, laughter in the rain, smokes a little (no drugs or religious nuts) loves music — anything from Air Supply, John Farnham to INXS and rock — who is not full of hang ups and a desperado. This town is full of men too young, married or too old. Looking for normal healthy outback type, rugged, masculine guy for friendship which may develop into something meaningful. I am not a vegetarian or a hippie — just a lonely very pretty educated nurse who finds the losers in life. Write Sarah, 1/134 Delany Ave, BRIGHT 3741.

LEO man, 37 healthy, lean, tall, clean shaven long-haired, sunny disposition, caring, positive attitudes, own home, acres S/E Tas, coastal wilderness, almost non-smoker, lifestyle includes co-parenting 2 boys 7 & 5, yoga, natural healing, earthcare, bush/coast walking, gardening, establishing nursery, seeks lady soul mate 26-40, share home hearth in mutual caring, sharing, supportive relationship. Rodney Ramesh Baker, 'Sun Forest' RSD 1132, STORMLEA 7184. TASMAN PENINSULA.

GENT 38, new to area, in comfortable position and into healthy lifestyle, seeks correspondence with lady leading to permanent, caring relationship. Please contact Frank, PO Box 845, TWEED HEADS 2485 or ph 075-367-475.

LADY 31, keenly interested in heavy horses, cows, plants. Experienced organic flower and vegetable grower, other interests include velvet, incense, swimming, building, architecture and stone huts. Genuine lover of animals and rural life. The sea is an important part of my life too. Would like to join, meet, correspond with person, persons or group with similar interests and enthusiasm for life. Please write Diana Horton, C/- PO, COWARAMUP 6284.

LADY 32 living Vic with two young sons seeks even tempered, genuine, honest, intelligent man who is big and strong with a kind heart and a sense of humour to be friend, companion, lover, father-figure. Prefer non-smoker who enjoys home-life and values inner beauty more then physical perfection. Louise, C/- PO Box 764, SHEPPARTON 3630.

GRASSIFIEDS

CONTACTS

LADY 30, Aquarius slim, enjoys cooking, fishing, country life, old fashioned romance. Seeks male of similar. Reply to J. Collier, C/- PO, BALLINA 2478.

AQUARIAN CAREER LADY educated non-smoker, independent but appreciates warmth of friendly shoulder and companionship of caring friend. Enjoys books, backgammon, cooking, coast and country. Like to meet or correspond with educated, good-humoured, caring non-racist man 33-43 capable of seeing through 'independence' to softer centre. Children, animals and mild eccentricities OK. Reply, Chris, C/- PO Box 764, SHEPPARTON 3630.

FEMALE TRAVELLING COMPANION wanted, 18-27 for around Aust trip. Steven Thompson, Wiseman Rd, SILVAN 3795.

SINGLE MALE 36 years, large build. Currently working to own 10 hectares at Gidgegannup, WA. Interests include boating, fishing, music, aquaculture, gardening, ad infinitum. Seeks lady 26-35 years view to long relationship to help put it all together. All answers replied to. Bill Bain, PO Box 158, KOOLAN ISLAND 6733.

VIRGO/LEO male, 48 5'6" bearded, tubby, div. sense of humour, trying to give up smokes, social drink. At present working 3 weeks out of 4 in bush. Would like to correspond meet quiet, loving lady with sense of humour. Interested in alternative living. Write M. Mitchell, C/- Box 6322, Hay St, EAST PERTH 6000.

SPIRITUAL LADY 42, slim attractive 5'4", alone, likes literature and shining lakes,reggae music, vegetarian, sharing, giving, seeks likewise guy for company. Will answer all replies. Write to Sky, 17 Colton St, WEST END 4101.

ETERNAL LIFE can only be experienced in this life. If you are loving, practical and down-to-earth then you and I could experience it together on my hobby-farm. I am a caring, negotiable, 33 year young star gazer, into natural highs, like running along the beach, push-bike riding, and holding hands, looking for a celestial body to orbit around. Wayne Johnson, 14 McKinnon Dr, TEWANTIN 4565.

KINGLAKE AREA, Lilydale, Yea etc., 26 year old guy moving into area soon would like to meet some sympathetic locals. Tall slim dark hair, brown eyes, vego, into working on my new found acre and being a homebody. All letters answered. John, PO Box 2174, ST KILDA WEST 3182.

GUY, 34 YEARS OLD living and working in Sydney, striving to get ahead, loves the outdoors and the beach, would like to settle up the coast if all goes well. Enjoys music, movies, good food, bush-walking and of course quiet times at home. Loves to rage but suffers the after effects. Seeks lady with a pleasant disposition who wants to go forward for mutual companionship. Tony, C/- PO Box 764, SHEPPARTON 3630.

ATTRACTIVE LADY 23 slim, 5'6" friendly caring, honest. I love country life, homelife, animals etc., Also occasional night out, restaurant movies etc. I'd like to meet a nice natured man with similar interests for permanent relationship up to 34 years. Must be over 5'10", good looking, not overweight. Write Caroline, C/- PO Box 764, SHEPPARTON 3630.

SENSITIVE, caring practical male 44, tall, slim, established, looking for new direction with confident expressive, creative passionate woman (32-42) willing to share life's ups and downs in a lasting relationship, who enjoys good health, music, laughter, nature, travel, fire-light, farm life. Bill Thomson, C/- PO, DURAL 2158.

FINANCIALLY INDEPENDENT woman, capable deep devotion, seeks N/S man, 45-60, who is intelligent, sophisticated, articulate, a listener for spirituality and above all strong and DECISIVE. She lives S.E. QLD, is clear of her identity, plans rural retreat, peace, space, gardening, conversations and call of the mopoke. Box 366, KENMORE 4069.

MY DREAM was to make country living my life. I built my bush setting home with all mod cons and share my dreams with 16 young ladies. It's a pity 12 are chooks and the other 4 are kittens. Is my way of life your way of living? I'm 37 and willing to share my new found happiness with a happy easy going female, any age, come share your life with me. Likes and dislikes appreciated, children no problem. Come on, put pen to paper. All letters answered. Ken, PO Box 49, ST ARNAUD 3478.

LEO/VIRGO MALE 22 adventurous, caring, wilful, blue-eyes, seeks female soul-mate, who likes good food, open fires, music, bush walking and an alternative lifestyle, to re-locate on a safe secluded acreage mid North Coast NSW. No religious or other cranks. Please reply with a contact phone no. Mark Anthony Rapley, PO Box 260, MT MAGNET 6638.

INTRODUCTIONS, soulmates, friends, understanding help. Full details, SAE, 'Consultus', PO Box 105, CLONCURRY 4824.

MELBOURNE. Prove to me that all nice girls aren't married. Are you feminine, sensitive, intelligent, affectionate, cute, caring and with some old-fashioned values (yes all the old cliches)? You can expect 33 yo European with blue eyes and blond hair, 71 kg, 168 cm, Capricorn, with a 3 yo son. I am a dreamer and a realist, down to earth, sensitive, gentle and understanding, affectionate, open and honest, intelligent, well educated, positive about life, sensual, easy going, reliable, financially secure with own nice home, non smoker. I enjoy swimming, photography, horse riding, outdoors, alternative lifestyle, farming, kids, music, open fires and lots more. Sharing with the right girl makes everything at least twice as beautiful. I would love to hear from you. Please write with phone number. JH, 14 McAllister Road, MONBULK 3793.

TASMANIAN GUY 24, Nature's son of this isle's spirited primeval mountains and rainforest wilderness, passionate, earthy, dynamic, enigmatic, free-thinking, rather Bohemian individualist loner, poet, warm, communicative, sensuous, strong, sensitive, honest, balanced, caring, easy-going, healthy, very together, bi-sexual, adaptable, handsome, adventurous, lived Scandinavia, NZ, UK, West Indies, bushwalker, skier, ecologist, seeks like aware independent spirited visionary soulmate/friends male or female to: live in the bush to nature's rhythm, trek Patagonia, ski Iceland, share, grow and explore ourselves — live our dreams. You on that awesome, often lonely path of self-discovery too? 'Skautroll', C/- PO Box 1050, LAUNCESTON 7250.

ATTRACTIVE, intelligent male 31 years old, 6 ft, slim, blue eyes, brown hair and moustache, living North Coast, NSW, enjoy doing almost anything, beach, movies, fishing, night out and homelife, love animals, own home on 3 acres, seeking slim, attractive lady to 35 years old, from any area, who'd like to settle down in the country, by the seaside. Write, Geoff, C/- Box 764, SHEPPARTON 3630.

AUSSIE young 60+, 5'11", Nth Qld, wishes correspond meet genuine, honest, caring lady to 60. Interest active retirement, home garden, dancing, fishing, beaches, non-smoker, occas. drink, not religious, intelligent, conversat. I have country farm background, good sense of humour. Please reply. Michael, C/- PO Box 764, SHEPPARTON 3630.

MALE single 33, nice looks, seeking a lady aged to 35, one child OK. Enjoys the simple things in life, not overweight, good sense and looks. All letters answered. Write to Jack, 24 Albury St, WAGGA WAGGA 2650.

Sender's Name For issue No/s

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General advertisements cost 30¢ per word, and property for sale is 40¢ per word.

Feedback Link-Up Feedback

Dear GR People,

Can anyone please tell me where to buy AUSTRALIAN ORGANICALLY grown sun dried figs, dates, apricots and other dried fruits? Also raspberry leaf tea which all seems to come from Europe.

Pam Irvine
11 Todd Lane
ROMSEY 3434.

Dear GR Readers,

To my astonishment the bank agreed to help me buy my 6 ACRES and cottage.

I have spent many years enjoyably exploring various lifestyles such as communal and community living, marriage and going solo. I've realised to my dismay that I'm much too selfish and self opinionated to live permanently with one group of people, or a husband. So I have cheerfully opted to take control of my own life.

The land here is incredibly fertile black soil with a limestone bed. I have been left a wonderful legacy by the previous (now deceased) owners, who were real old timers: a huge variety of plants in the bush houses and gardens, many rare and fussy plants are well established, plus drums of seeds (many unrecognisable). There is also a large variety of native seeds and pods. I am a working mum with 3 kids so I'm trying not to take on too much until I have enough to finish work and go full time here.

I can nearly do the lot myself but would welcome some advice. Is there someone who would like a dose of free country life in return for helping me set up a WIND POWER SYSTEM? Are they hideously expensive? I want to use power tools, lighting and charge batteries for the electric fence. Feasible? Is there anyone in my area who would be interested in a joint herb/vegie growing venture? Any advice from readers about a super cheap electric fence system, hopefully using car batteries would be helpful. The idea is to enclose a couple of pigs on a ¼ acre of land at a time. Sections of my land are overgrown with bracken, I have planted Jerusalem artichokes throughout it. The pigs should plough up, manure and root out the bracken tubers in the search for the high food value Jerusalem artichoke, the end result being clean well manured land, and pork. Also, where do I acquire a PTO for a long wheel base Land Rover?

I'd like to hear from other people in the area who are on the land to share info and equipment.

Julia Law
PO Box 803
MILLICENT 5280.

Dear People,

We're interested in building a PYRAMID HOUSE from local timber. Possibly a mudbrick base, but are interested in connecting with anyone having some knowledge of this. A friend said a metal frame would increase the magnetic healing properties of the place. I am interested in Feng Shui — the squaring of the circle — where a building is placed on the correct leylines for optimum harmony with the environment — a Chinese form of finding building sites I think. Also I am interested in positive forms of acting — perhaps a lightly spiritual or idealistic fun amateur group/people are near my area. I went to two acting classes in my life and after working on reading the speech that 'Betty gives her closet homosexual husband for 10 years after him finding out about her affair' I was totally drained! I'm sure they're not all that heavy.

Rebecca Kellock
L21 Kingsvale Rd
Myocum
VIA MULLUMBIMBY 2482.

Dear GR Folk,

I have written to most GR folk who very kindly responded to my request (GR 66) re calling in on our proposed trip to North Qld. Owing to a serious heart attack (am recovering after 5 weeks in bed) won't be able to call as planned — sorry — but here's hoping to make it next winter! I shall write to the couple of senders of late letters which arrived in June, as soon as I can. I'm tired of bed and would have loved to call on GR folk.

Does anyone have a copy of *NESFIELD'S ENGLISH GRAMMAR* — it was used in state schools in many states in the 1920s? Will buy; or photocopy if not for sale (and pay postage). I want it for research.

Also I would love a few seeds of SCARLET RUNNER BEANS — enough to grow and recycle the seeds (for home garden only).

Iriss Quigley
'Minjilunga'
CHILLINGHAM 2484.

Dear Grass Roots,

I am writing to you for two reasons. One is to recommend a book titled *A Blueprint for a Green Planet* by John Seymour and Herbert Girardet. This book details the various ways we are destroying this planet and more importantly positive ways to stop it. My second reason is I am interested in finding information about the art of SHINGLING and about FROES. Any diagrams or places where I could obtain a froe would be much appreciated.

Brendan
225 Curtin Ave
COTTESLOE 6011.

Dear GR,

I have been reading GR for several years now and find it very helpful. We live in a 20" per year rainfall belt — the last 2 years barely made that combined — so it has been a help.

I have established a huge ORGANIC GARDEN over the last 8 years. We have our own vegies, most fruit and seasonal fruits and vegies.

An easy way with manure for the compost and garden is to play tricks. If your calf pen and cow bail are situated near the poultry pens, all you have to do is generously sprinkle your favourite hen food on cow pats, the hens obligingly break it up. Every week or so just rake up and dump on compost corner or ready for next season's vegie patch. We have a lawn that does not believe in stopping at the edges of gardens or under fruit trees, so during winter when it's a pleasure to be out of doors I lay lots of overlapping newspapers and then straw on top. Under fruit trees I first sprinkle a little blood and bone, dolomite and ground rock fertiliser — then an inch or so of manure. Water this in well then lay thick newspapers — water well and then a good 4-6 inches of straw. You may have to place rocks etc for a few weeks. Make sure the trunk has a good clearance though so no rot sets in. I find it much easier to keep weeds out — just throw on top of straw to rot down — and particularly couch grass which is classified a pest in this area. I just renew this each autumn and have a lovely lot of worms even in summer.

We are slowly seeing good results as we have had a few droughts and water problems. I try for trees which are shady, have beautiful flowers or are perfumed and have either fruit or nuts for human consumption, also that will attract birds and bees. We are finally having a good build up of ladybirds also. Paper wasps have built in our orange tree and thus I find no problem insects in the peaches at all as the wasps keep them under control. I also find winter thistle is very attractive to aphids, so I reckon while the aphids concentrate on those my plants are free. It is rather cold for ladybirds this time of year (June).

Anyway this was just going to be a note to say it heartens one to keep on trying when you know like-minded people are doing the same.

Jenny Bailey
'Oberina'
M/S 2027
ROMA 4455.

Hi,

I would like to hear from anyone in the Lismore region who has used the local RED SOIL for mudbrick construction. I am wondering about its suitability for such a purpose.

Also is there anyone who has used sawdust/cement/sand combination as a building material? I would be interested to hear from anyone who has built with this material either in the Lismore region or anywhere else. There seems to be a lack of information about this method, so even anyone with some technical details or knowledge of a source of such information would be most useful.

Thanks given to anyone who considers writing.

Doug Yates
Rous Mill
VIA ALSTONVILLE 2477.

Dear Grass Roots Readers,

Hello to you all. I am working on the Australian Bicentennial Exhibition currently touring down the east coast through fifteen regional centres then to Tasmania and finishing in Sydney in the last week of December. It would be great to meet some GR people along the way. Dates and locations are available from the Australian Bicentennial Authority or from the local Bicentennial committee in your area. Also by phone on 02-234-6888. Hope to hear from you.

Robert Blomfield
C/- Personal Mail
GPO Box 1628
SYDNEY 2001.

Feedback Link-Up Feedback

Dear Grass Roots Friends,

We are looking for *The Country Kitchen* by Frances Lincoln Publishers Ltd, text by Jocasta Innes. This is an English book with a black cover and a black dust cover with a pantry shelf photo on the front. Please help us with information on where we can get this as we've gone cooking mad.

Barbara Edensor
PO Box 1230
NORTH SHEILDS 5607.

Dear Megg,

Here are some suggestions for HOME MADE RAISING AGENTS. You may not be saving money by making your own raising agents, but what price do you put on knowing what is going into your store cupboard and ultimately into yourself? These methods give you an insight into how our forefathers and foremothers coped without a modern supermarket.

An alternative to commercially manufactured baking powder or self raising flour is to make your own baking powder and add it to plain flour when preparing the ingredients for a mixture. Adjustments can be made by varying the amount of baking powder in ratio to flour.

1 tsp baking powder per cup of flour for cakes, biscuits in which eggs are used;

2 tsp baking powder per cup of flour for biscuits, muffins, waffles;

¾ tsp baking powder per cup of flour for whole grain flours where eggs are used.

This of course can be varied according to personal taste, remembering with home made baking powder the best results are obtained by mixing flour and baking powder immediately before using.

An added bonus in using plain flour only is you only need 2 containers for storing flour — plain white and plain wholemeal.

Other recipes for baking powder include this recipe which is at least 48 years old:

50 g (2 oz) cream of tartar
25 g (1 oz) bi-carbonate of soda
25 g (1 oz) cornflour

Sift all ingredients together at least 6 times and store in an airtight jar.

This next recipe is known to be over 90 years old. Weigh carefully, mix and sift well together, 500 g (1 lb) cream of tartar and 250 g (½ lb) baking soda. Store in an airtight container.

K Beverley
Old Glen Innes Rd
VIA GRAFTON 2460.

Dear Grass Roots,

First of all, let me say how much I enjoy the magazine and all the 'chat'. I live in suburbia as my husband's job is in heavy industry, but my heart and soul are firmly in the country. We hope to retire and move to northern NSW in the not too distant future, where we would like a small acreage with good garden soil, a few pets and 'cows for neighbours'.

I am very keen on all handcrafts and think the FOLKWEAR PATTERNS are great. I have been unable to get a couple of patterns and hope someone can help. I am looking for Folkwear Patterns No 224 Beautiful Dreamer, 213 Child's Prairie Dress and 220 Garden Party Dress. Hoping someone can help.

Patricia Holland
43 Sirocco St
JAMBOREE HEIGHTS 4074.

Dear GR Readers,

I have always lived and farmed in the country area south of PERTH. It's only recently that I have become interested in self-sufficiency and getting back to the old ways, and living in harmony with nature instead of constantly draining the land and chasing dollars. I would appreciate any advice or information on all aspects of SELF-SUFFICIENCY.

Terry Ball
PO Box 660
ALBANY 6330.

Dear Grass Roots,

Do any readers know a way of keeping MOSQUITOES at bay? My daughter and I are about to build a small house on an uncleared bushy 25 acres where I happen to know the mozzies are already doing pushups in readiness to carry us away when we arrive. Is there any plant they don't care to be around or anything that will deter them from the direct area around the house? I would be grateful for any suggestions to prevent these beasties from spoiling our lovely lifestyle.

Norma Underwood
30 Hudson Ave
PORT MACQUARIE 2444.

Dear Megg,

I am writing in answer to people's plea about a cure for PSORIASIS, having been a sufferer of it for 30 years, and at the end of the road. I worked out this programme for myself 18 months ago and have had a 95 percent cure with hardly a sign of it since. You see a big difference in the first week and in about 10-12 weeks you should be almost completely recovered. I would love to know if my cure works for others. Three of us with the complaint tried this and it worked on us all, so 'Good luck' to all who try this programme.

Vitamin C tablets, 500 mg ascorbic acid, make sure they are tablets that do not contain sugar, salt, gluten or lactose. Split into several doses, take 18 tablets a day for 21 days, then 12 tablets a day for 21 days, then 8 tablets a day for 21 days, then 4 tablets a day forever.

Seven to ten days after beginning the treatment scaling stops. This is when your body begins to itch. I took Palaramine antihistamine tablets (read directions carefully). I don't recommend using ointments as they tend to spread the psoriasis. I used Sorbolene Cream Plain — not with added glycerine.

From the first two weeks you will begin to see an improvement. The psoriasis starts to fade and within 3 months you are a new person, but you must be very firm about not missing one day of treatment. Do not use soap of any kind, hot water (use warm water to bathe as hot water aggravates), penicillin or quinine. Do not drink alcohol of any kind or food that has been fermented, cocoa, coffee, sugar, salt, or food that has come from fungus. Eat citrus fruit, tomatoes, pineapple and broad beans sparingly, and eat any amount of fresh fruit and vegies raw or lightly cooked.



Rita Leary
14 Lerett St
STAFFORD WEST 4053.

Dear Editors,

I have searched for ages FOR GR PEOPLE in my area near Byron Bay. I moved here from Sydney nine months ago by choice glad to leave the big smoke.

Up here the locals don't talk to you only about you so it's very lonely particularly at night. I would love to make friends with people who like me enjoy having acres to grow things on

I'm divorced and enjoy company around 45, but all contacts will be gratefully acknowledged.

Chris Lykke
Lot 5 Fernleigh Rd
FERNLEIGH 2479.

Dear Megg,

I think you might suggest that if someone wants to vary the texture of SOAP, they try adding various test quantities of potassium hydroxide, (caustic potash) which alone makes either a shampoo or a soft soap.

Also, as well as pyrex glass or stainless steel as a container to dissolve caustic soda, one can use enamel ware. A friend told me he had shattered ordinary glassware when dissolving caustic soda (sodium hydroxide), so care needs to be taken when using these substances.

Leonard Levine
Flat 8
483 St Kilda St
ELWOOD 3184.

G'Day To You All,

I come from a little place called Willunga in SA, well actually at the moment I'm in my last year of an Associate Dip in Ag Production, a two year practical based course at Roseworthy Ag College. You will be happy to know that farmers are now beginning to be educated on proper land management, planting trees, reducing erosion and salinity as well as better use of chemicals, although some are a little narrow minded when it comes to conservation — traditional values die hard!

I finish my course in 4 months and am looking at TRAVELLING this country to meet some of you wonderful people and I would love to learn and share. If anyone has any tips on travelling please drop me a letter. I'm not a complete novice but I'm sure there's lots to learn. I'm looking to head off after Christmas 88-89 so if anyone is interested in a visitor drop me your address. Well thanks for listening everyone, and to you all good luck in what you're hoping to do.

If anyone knows of some good secluded surf spots for sailboarding or great beaches, let me know thanks!

Brad Smith
Roseworthy Ag College
ROSEWORTHY 5371.

Feedback Link-Up Feedback

Dear Megg and Kath,

We have appreciated and benefited positively from your magazine for several years now and we believe it to be one of the best learning publications available. I have been interested in an alternative lifestyle for many years and believe Utopia is possible if we can all listen to our hearts and not participate in mass consumption and destruction which appears to be the focus of our industrial society. I have met a beautiful companion (who shares similar ideals) and with her little son we have been attempting to purchase land and become self sufficient to help rather than drain the local community. Unfortunately our favourite areas, including the Bellingen area of the north coast appear to be out of the question because of the level of TOXICITY from chemical sprays. On top of that our financial situation is just above water and without employment (I've applied for nearly 50 in 6 months without success although I have good references and a Horticultural certificate) or rich or generous parents a loan is very hard to come by. If you or your readers know of the best area with the least toxicity, jobs and a healthy alternative community we would appreciate any suggestions.

Peace and love to you, your readers and everybody else.

Eugene Greenfield
2 Quarry St
NAMBUCCA 2448.

Dear All,

This coming summer I am planning a trip to NEW ZEALAND and would love to visit GR people during my stay. I plan to work in Wellington and to visit Auckland and Coromandel. I am in my forties. Any replies very happily received.

Mary Tournier
DUNOON 2480.

Dear Friends,

I am a keen 24 year old male, totally committed to all things free and natural, and a Christian. I am genuinely interested in learning MUD-BRICK CONSTRUCTION. So far I have been able to unearth several books through the local library, many dealing with actual brick making but none directly related to housing construction.

I am having moderate success at this project but if anyone could be of some ongoing help to me, via correspondence, then I would be truly grateful and will respond personally to all letters received. Stay in peace.

Steven R Smith
Locked Mail Bag No 2
NTH PARRAMATTA 2151.

Dear Grass Roots Readers,

The last time I wrote was about 2½ years ago, maybe 3. In that time I have moved from the Adelaide Hills to San Diego, California and now back to the Adelaide Hills. In that time we also had two more children. Now, my wife and four kids and I are living on a 13 acre block of land and working very hard to establish a self sufficient home and lifestyle. We've put in a dam, a couple of rainwater tanks, established a herb and vegetable patch, planted fruit and nut trees and native trees and shrubs, as well as refurbishing the house, and raising 4 young children. So we are a bit busy.

I had a very good response to my PSYCHIC DREAM SURVEY. Your letters were all lovingly read and appreciated. I was touched and impressed with the depth and quality of dream experiences that fellow GR readers experienced in their daily life. Thanks again.

Jack Wepler
PO Box 418
MT BARKER 5251.

Dear Grass Roots Readers,

I wonder if my experience with a WHITE FINCH might be helpful to poultry owners? I was so distressed to find my pet with his feathers fluffed up and eyes half closed, looking as miserable as a wet week. I know that vets can't do much for a SICK BIRD, so in desperation I put a cup of warm water with 2 drops of rescue remedy (Bach Flower essence) stock into a spray bottle and sprayed him thoroughly. Then I replaced his water (about a ½ cup) with fresh water laced with a level teaspoon of sodium ascorbate and another 2 drops of rescue remedy stock. Every hour for the remainder of the day I'd spray him again (and his mate, in case she was also in danger of whatever he'd caught). Both of them imbibed freely of their spiked water and to my delight, next morning my little friend was flapping around as bright as a button. That was about six weeks ago and he's still in excellent health.

V Kwong
148 Elm St
NORTHCOTE 3070.

Dear Grass Roots People,

I have found that the people who live by our alternative values are generally quite a bit older than me and that their children all seem to be quite a bit younger than me.

I live on the far south coast of NSW; I enjoy designing and building mudbrick houses with friends, music of course, the bush and going to confests once a year. I live on a large bush block and I'd like to hear from people between the ages of 16-21 who wish to exchange their ideas and friendship.

Looking forward to hearing from you all soon.

Sean Jones
PO Box 408
NAROOMA 2546.

Dear David, Megg and GR Readers,

Well my very dear friends it's been a very long time from my last letter, but here I am writing again. As you can see I am still in prison but I will get out at the end of the year. My last letter that I sent, I was in Townsville Qld and now I am at Palen Creek and that is at the other end of Qld. It has been a very hard long road but now I can see the end of it and I am so very glad.

I still love reading *Grass Roots* very much and I have written to a lot of people from your Feedback and Contacts and have always got an answer from them. If anyone would like to drop me a few lines to say 'Hi' I would love to hear from them very much.

I do not get too much pay in here. Right now I am getting $1.05 a day and that is only a bit over $7 a week. So you see I am not working for the pay that I get in here. I work in the garden and love growing all the vegetables. There's about 16 acres so it's pretty big. Your friend always.

Gordon Van Assen
HM State Farm
Palen Creek
VIA RATHDOWNEY 4287.



Dear Megg,

We, John and I, were introduced to *Grass Roots* magazine when we bought our first rugged 40 acres of ground, by one of our patients while nursing at Greenslopes Repat Hospital. Thank you for a very informative down to earth book written in a language all can understand.

We also bought a 5 acre lot (as no one would deliver anything to the rugged block) and built a kit home on it. It took us 12 months of hard slog at 2 days off a week to finish it. You probably say 'that's no big deal' but John and I are in our 50s, no spring chickens in years but definitely in heart. So all you young ones take heart, if the oldies can do it, how much more can you young ones achieve? Most of our furniture and fittings are second hand loved and renovated so with hard work and imagination and little money we have proved it can be done.

Good luck to you all and keep up the good encouragement.

Pat and John Rooney
'Pomtail Haven'
Lot 1 Hughes Rd
PLAINLAND 4341.

Hi to Everyone, Staff & Readers,

I've been a grassrooter since No. 22, but only ACHIEVING MY GOAL in 1986 when I purchased my block at Kendenup in the south of Western Australia about an hour's drive north and slightly east of Albany. The initial sub-division was about two hundred and fifty acres and was growing coarse grains the year before I bought my twenty-eight acres. It had been very dry for a couple of years before I bought my block and has since been declared drought affected. Economics being what they were and still are, I moved straight on to it. My home being three garden sheds bolted together as one, my plan is to build in stone a bit later.

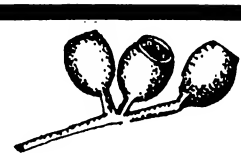
There seems a lot of inquiry as to the disposal of HUMAN WASTE. For the last couple of months I have been observing the actions of the dung beetle, introduced here from Africa and other places, primarily to bury animal manures. What I did was dig a shallow trench and tip the waste along it and then I collected several species of beetle and tipped them in, boy do those little blighters enjoy their job. This idea wouldn't work for everybody but for those on out-of-the-way blocks like mine, it works extremely well. The Agriculture Dept. in your state should be able to offer more information, re type, conditions, etc.

I'll sign off now and go and plant a tree of some kind.

Les Shortland
C/- PO
KENDENUP 6323.



gumnut gossip



Megg Miller.

Those wet grey winter skies are well behind us now, replaced by balmy days and the tantalising scent of spring blooms. Such weather leaves pen pushers like us hankering to be pottering around in the garden or catching up with outside jobs. And readers' letters of course, with their references to garden and farm activities, only act to fuel our frustration. Fortunately there is time at weekends for all of us to dig and rake and just generally re-establish our links with nature and the earth — paramount for people who work indoors all week surrounded by air conditioning and new technology.

It was only a few weeks back that pen pushing and office work held great appeal, a time when it was so cold and miserable even the ducks thought twice about venturing out. When you consider, it's quite amazing the degree to which our activities in life are influenced by the weather. Trish our postie also manages to run a nursery and frequently remarks on how busy the place is when the sun shines after a period of inclement weather. We find people are more inclined to order back copies during the winter months, when the nights are long and weekends often wet, and there is ample time for catching up on reading. If winter is reading time, spring is undoubtedly gardening time, and the success of summer crops will largely depend on the work done over the next few weeks. With all this outdoor activity, we hope you'll still be able to spare a few minutes for reading GR and that you don't obliterate all the type with your earthy fingers.

With growing and gardening in mind it seems an ideal time to ask city readers for more input on how they achieve a degree of self-sufficiency. As a mature age reader recently said in her letter to us, 'you don't need to move to the country to garden and grow fruit.' We'll publish the story of her highly productive block in a future issue. When you consider what country gardeners battle against — poor or rocky soil, water shortages, grasshopper or insect plagues, break-ins from sheep and cattle — the idea of city growing becomes very appealing. One of the joys of travelling on the city rail system is the opportunity it provides to peek into suburban backyards and check out the vegie gardens. I'm sure there are lots out there, and many with a range of fruit trees as well, but my favourite backyard is one overlooking the Tullamarine Freeway in Melbourne, which has a well planned productive looking garden and a little yard with a couple of sheep. I see them regularly and just hope they are not potential pot roasts replaced by look-a-likes each month!

Our request for how-to-do-it info on urban growing has been prompted by concern over a small number of disillusioned ex-subscribers. We felt concerned that they had ambitiously set about achieving all their lifestyle goals within a limited time, in an unfamiliar and often isolated setting, and with very fixed criteria. Unfortunately their view of self-sufficiency totally excluded a city interpretation, so they were left with only negative feelings about their efforts to achieve their dream. 'We don't need GR any more as we've moved back to suburbia.'

The myth of self-sufficiency is a very romantic one and invariably includes some sort of scenario in the country: a few acres perhaps, a farm, a block in the bush. It is important though to be able to separate the dream from what is practical and achievable. For almost half our readers what is achievable right now is backyard, balcony or even community gardening, though at least half of these hope to settle in the country in the future. We may not be able to do much to help our disappointed and disillusioned group, but we can encourage present readers to look beyond the myth of self-sufficiency and set up a lifestyle that is pleasurable and attainable. The idea of providing all for oneself and one's family is a mammoth task, a life commitment that is more restrictive than any 9 to 5 job. It may be more important to achieve happy and fulfilling family relationships than to provide all the food we eat and clothes we wear. I hope readers will share their thoughts on this dilemma as well as describing the ways they achieve independence from the commercial food chains.

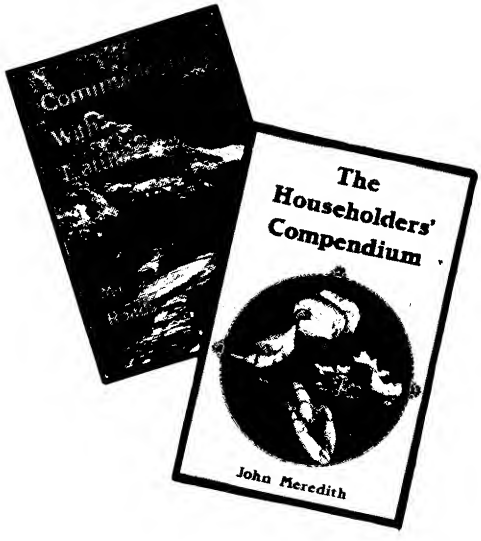
This issue sees our first price rise since August '86. It's been quite a feat to keep it down for that length of time because wages have risen, paper has become dearer, postage increased, and on and on during that time, and all have had to be absorbed by us. At one stage we reduced the number of pages by eight to cut costs, and within the month the printers increased their bill and our supposed gain became a loss. We've put off the increase for some months now but can't do it any longer — we just hope it doesn't trigger off more rises in postage, wages, paper and the like.

Although most of you will not have realised, in issue 66 we committed the sin all publishers pray they won't but invariably find they have. This heinous crime? Contravening copyright. Our GR contributor, like most people, wasn't aware that we can't publish material from other books unless the book is over 50 years old or we have the written permission of the publisher. In this case we printed 'Custard, Real Custard' in good faith but later found it is an extract from Michael Boddy's delightful *Good Food Book* , published by Thomas Nelson. so please readers if you find snippets of information you know will interest others or even articles in papers and magazines on people or activities relevant to GR, do send us the clipping or a copy, but also jot down the date and particulars of where the material came from. Then if we want to follow it up or reprint it the necessary details are at hand.

Before finishing up this issue I'd like to tell you about an event we all enjoyed. Winter is birthday time for me and it is always eagerly anticipated by fellow workers, being the only occasion for many months that warrants a cake. Falling around a particularly busy stage of magazine production, the celebration was supposed to be fuss free this year, and so the day came and went quietly. Of course office protocol demands the birthday star brings a cake and so I dutifully made my cake for work next day. I must get my cake, I thought round lunchtime, and went off to the house to organise it. When I returned the table was literally covered in birthday cakes and the party in full swing. 'Surprise! Surprise!' A large box was thrust into my arms. 'Chooks,' I thought detecting a certain smell, 'coals to Newcastle,' as I set about opening it. Out came two of the quietest and prettiest little pullets imaginable — Salmon Faverolles, a rare breed of French origin characterised by face muffs and feathered legs. I was stunned — 'Where did you find them?' 'It was difficult with you around, we were scared you'd answer the phone and blow the surprise!' These same people have had to suffer the attacks of the gander, the courting habits of amorous turkeys and the stench of chook on their runners — you'd think they would have had enough of poultry. But they had dobbed in and tracked down a breeder, organised air freight and delivery and chook-sat the pullets for the weekend. And the delightful ending to the story is that the breeder, who lives in Deloraine, Tasmania, is a regular GR reader. 'Crikey' he said when he heard they were to go to *Grass Roots*, 'I'll be famous.' Bless you Dennis, and thanks Julie, Anna, Kerry, Kath, Yvonne and Eileen.



More Great Night Owl Books



Communicating With Nature

Michael J. Roads

144pp $9.50 post paid

This book shows us how we can work better with nature in a more direct and spiritual way. A book for the new farmer, conservationist and dedicated gardener.

The Householders' Compendium

John Meredith

210pp $10.50 post paid

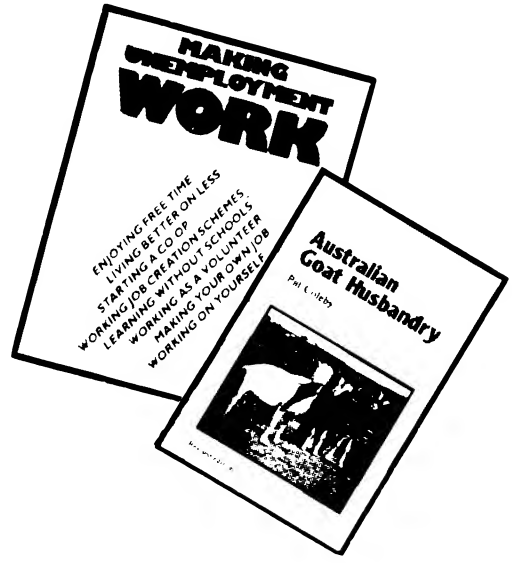
Consult this book for new ideas on family meals, what to do with seasonal gluts of fruit, how to make insect repellent, cure warts and more. A valuable source of information on being self-sufficient in a pre-packaged world.

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Cheryl Paul

160pp NOW ONLY $9.50 post paid

This is an informative and inspiring account of how to make the most of your time while unemployed. It is a practical and positive discussion of the issues and options available to unemployed people.

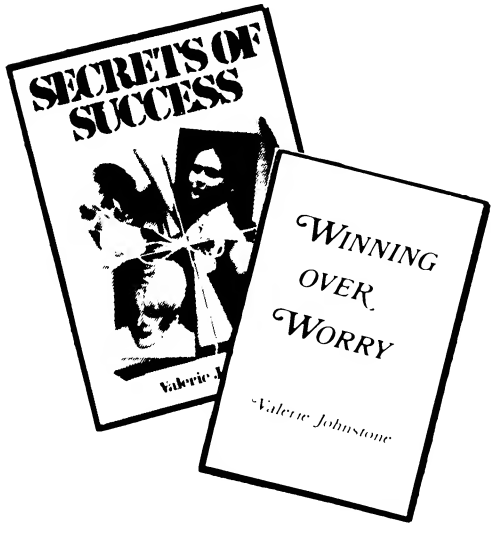


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This is still the most popular Australian goat book available. It emphasises improved management and the prevention and handling of health problems.



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Val Johnstone

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